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MARCH 1957

THE DEVELOPMENT AND APPLICATION OF A NEW CONCEPT OF INTERNAL AUDITING — A. H. KENT

A VALUABLE BY-PRODUCT — R. E. TUTTLE

ELECTRONICS AND THE INTERNAL AUDITOR — V. F. BLANK

AUDITING FOR MANAGEMENT — G. D. BUNCE

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MARCH 1957

Vol. 14 No. 1

CONTENTS

The President's Page 5

The Development and Application of a New Concept of Internal Auditing by Arthur H. Kent 6

A Valuable By-Product ..... by Roy E. Tuttle 19

Internal Auditing Objectives ..... by Donald S. Grubbs 28

Electronics and The Internal Auditor ..... by Virgil F. Blank 35

Auditing for Management ..... by G. D. Bunce 46

Round Table ..... edited by Donald T. Barber 53

Student's Department ..... edited by Stanley J. Blaznek 58

What Life Insurance Management Expects of the Internal Auditor by R. A. Taylor 59

Internal Auditing for a Store ..... by James D. Shea 68

Articles of Interest 73

Employment Section 73-79

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THE INTERNAL AUDITOR. Owner: The Institute of Internal Auditors, Inc. Publication office: 701 Pine Street, Burlington, Vt. Editorial office: 120 Wall Street, New York 5, N. Y. Publisher: The Institute of Internal Auditors, Inc. Entered as second class matter under the act of August 24, 1913, at the Post Office, Stamford, Connecticut. Re-entered as second class matter, at the Post Office, Burlington, Vermont, March 17, 1956.

Copyright by The Institute of Internal Auditors, Inc. 1956.

Advertising rate card upon application. Issued quarterly on the first day of March, June, September and December; $1.00 a copy. Subscription $4.00 per year.

The Editorial Committee invites you to submit papers for publication.

Expressions of opinions in The Internal Auditor by the editor and contributors are their own and are not necessarily endorsed by The Institute of Internal Auditors. Articles are selected for their general interest to those in the internal auditing field.

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The Internal Auditor

JOURNAL OF
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VOL. 14 MARCH, 1957 NO. 1

THE PRESIDENT'S PAGE

IN broad theory there are very few technical limits to the scope of the internal auditor's activities. The range of activities may be applicable to almost any kind of factual data, whether it be accounting or operating data. Needless to say, there may be practical limitations to the scope of his work. These limitations would be based primarily on the capacity of the auditing staff. In any individual company, as well as in a professional sense, expansion of the activities of internal auditing would seem to follow a pattern of evolution, during which there is developed a feeling of confidence and acceptance on the part of others.

Over a long period of time any profession will develop to the extent that is justified by its ability to satisfy a continuing need. The extent to which it will develop, as well as the rapidity of such development will be dependent largely upon how clearly the need is recognized, as well as upon the general ability of the professional men to contribute to the successful solution of problems involved.

In internal auditing the basic need has long since been recognized, and internal auditing has emerged as a recognized field of professional endeavor. A more wide-spread use of internal auditing, as well as a continuing trend of further utilization of capacity of the Internal Auditing Department, constitutes a sound basis for expecting that the function of internal auditing will be further extended in the years ahead. What progress is made in the future will be dependent upon the contributions that are made today by the individuals who are engaged in this expanding work. One of the greatest services that can be rendered by an association is providing the mechanism for pooling our resources and sharing our knowledge. With all of us making our own contribution, internal auditing has before it a continuing opportunity of unlimited scope.

E. F. RATLIFF

THE DEVELOPMENT AND APPLICATION OF A NEW CONCEPT OF INTERNAL AUDITING*

By ARTHUR H. KENT
Lockheed Aircraft Corporation

Internal Auditing concepts and activities have developed in a gradual manner from a checking of the mathematical accuracy of certain records to the present status of internal auditing as an element of managerial control. An important element in this development is collaboration between internal and outside auditors.

THE marked changes in the entire activity of internal auditing have some bearing on the relationships between a company's outside auditors and its own internal auditing staff. In this discussion I should like to picture for you the various stages through which internal auditing has passed and the conditions which brought about the changed thinking and programs. And then I shall attempt to acquaint you with what many of us are thinking these days, and what we are trying to accomplish.

I think you realize that internal auditing today bears little resemblance to the activity with which some of us were familiar many years ago. Its purpose, viewpoint, objectives and scope are so entirely different that it is difficult to conceive that the old type auditing ever existed. First then, I shall trace the metamorphosis of internal auditing.

SCENE 1

Let me take you back in memory twenty or thirty years for a look at the internal auditor of those far off years. What sort of an individual was he, and what did he do?

Perhaps the ones I knew were not completely typical, but I think they were reasonably so. They were rarely young men; they were men who could add and crossfoot without the aid of office machines. They were earnest, severe, methodical men, who held themselves quite strictly aloof from the

*Delivered at a meeting of the Los Angeles Chapter of the Society of Certified Public Accountants and reprinted from the May 1956 issue of The California Certified Public Accountant.

organizations they were checking. In general, their minds ran in routine grooves, although some of them had a genuine faculty for smelling misappropriations, however small.

They verified cash, bank accounts and receivables, and examined documents for approvals—but that was about all. On all the records they checked they placed their own specially assigned and shaped check marks, which were regarded by them as sacrosanct. Since there was scarcely anything of a constructive nature in their efforts, most operating managers saw little reason for their existence. Yet despite their limited abilities and objectives they contributed something of value.

SCENE 2

In the early 1930's came the Securities and Exchange Commission, and with it the requirement of certification by independent auditors of the books of those firms listed on the Stock Exchange, and out of this came the first change in internal auditing concepts.

Many of the large business firms affected set up their internal auditing staffs to work along lines somewhat similar to their outside auditors and supplementing their work.

One natural result of this was that in many companies the outside auditors developed—and to quite an extent controlled—the internal auditing programs, and so internal auditing in such companies became a shadow or echo of public accounting, without the prestige of the latter. Even today some companies are still following this line.

SCENE 3

About the time the change I have described in Scene 2 was taking place came the first glimmering of an idea that was to change radically the entire concept and program of internal auditing. A few internal auditors scattered in various parts of the country were envisioning the possibilities of a service to their companies which would be totally different from any thing previously given. At the outset the idea was somewhat nebulous; but as time passed and earnest thought was given to it, the embryonic idea took clearer shape and form and its potentialities became intriguing.

The explanation of the essential difference in viewpoint between an internal and an outside auditor had been almost automatically stated on many occasions; "one worked in behalf of management the other in behalf of the stockholder, etc." In that explanation was the germ of the idea that was to change the concept of internal auditing and transform the entire program of activities.

The idea that the internal auditor served management took on a new and realistic implication. It began to register. We began to think and ask ourselves questions. Serving management meant that we must produce something of real value to it. Were we being as valuable as we could be? If we were to serve management why should we confine our usefulness to financial management? Why not all management? This would mean that we would need to find ways to help operating management.

Thus the picture became clearer. To be helpful, we must supply managers with information on matters that were important to them. We were familiar with matters of interest to financial management, but what about our operating managers? Although they had some interest in accounts there were other responsibilities that weighted them down. We must study their problems and determine what we could do in the fields of their concern.

So this new concept of the potentialities of internal auditing was born, and it grew slowly but steadily until today it is the basic concept of the internal auditing profession and of its spokesman, THE INSTITUTE OF INTERNAL AUDITORS. THE INSTITUTE was organized in 1941 with 24 members and one chapter. Internal auditors from almost every large company have joined it until today it is international in scope. It has over 3,500 members and over 52 chapters, not only in this country but in Canada, England, Scandinavia, Australia, the Philippines and South America, and non-chapter members in still other countries. Through its research, educational and publicizing efforts it has helped to give internal auditing a more definite status in business.

The changes in concepts and activities that have taken place have not been abrupt but came about by a series of slow, natural and logical movements. The internal auditors had been able to render service in checking and verifying financial records, in observing the adherence to accounting policies and the soundness of accounting procedures. In doing this they had acquired certain skills in such activities. It was therefore reasonable to believe that they could apply those skills to similar work as regards management operating statistics, and policy and procedural matters in non-financial areas.

Moreover, these changes have not been uniform throughout industry. In some companies today, internal auditors are doing little beyond financial

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Mr. Kent is a member of THE INSTITUTE OF INTERNAL AUDITORS *and is presently serving* THE INSTITUTE *as Chairman of the Research Committee.*

auditing, while others have moved, in varying degrees, into wider horizons of practice. And practice will probably never be completely uniform because of various factors.

SOMETHING NEW AND UNIQUE

What made the change in thinking particularly important was that it opened up the possibilities of internal auditing in big companies as an activity that was unique, a field that had not been entered by anyone else. When the internal auditor double checked records he was doing a necessary job but it was essentially a repetition of work done by clerks. When he confined his work almost entirely to testing the accuracy and propriety of accounting distributions he was imitating the outside auditors. He was using their techniques, and his objectives were essentially the same as theirs. He was following their steps in a field recognized as particularly theirs. When, however, in a program of continuing examinations he moved into new areas of operations, with differing objectives, with some different techniques and end-results, and a new and broader market for his merchandise, then he had opened up a new field, in which he alone was to work.

There is an area of audit coverage where the internal auditor walks side by side with the outside auditor and seeks to render all possible assistance to him. But there is an area of audit coverage where the internal auditor walks alone, an area which is his sole responsibility and challenge, where the objectives and viewpoints are those of a manager as well as of an auditor.

Operating management is primarily interested in operations—efficiency, economy, good relations, waste, loss, profits, quality of supervision—good or bad. These are the things that press on them continually. The findings of trained, objective analysts that either reassure them as to conditions or suggest the need for corrective action are valuable to management. If in addition to assuring management that financial figures are accurate we can:

- Assure them that other statements by which they control their various activities are reliable—or inform them that they are not.
- Provide them with information on the various matters of direct concern cited previously.

Furnish information that:

- Comes from the ground floor of operations and might not otherwise come to their attention.
- Directly concerns the efficient conduct of the business for which management is responsible.
- Helps them to operate the business with more specific knowledge of detailed conditions in various areas.

Then we offer a *unique* service and one that is useful to management.

This type of service to management is a logical outcome of underlying business needs in modern large ramified business activities. In the large business top management establishes policies, targets and general programs. Responsibility for detailed activities is passed on and on to ever receding levels and further and further away from its personal observation. Management must therefore have intelligent, objective reports of how closely its policies and programs are being carried out in the various areas of activity. The internal auditor has an important part in supplying this need, and in it he finds his opportunity and challenge.

APPROACH, OBJECTIVES AND SCOPE

To fulfill his mission the internal auditor recognizes a dual motivation. He must verify and analyze his company's accounting activities; but beyond this, he must think of himself as a personal business representative of management.

It would be quite illogical to assume that top management is interested only in accounting affairs. Instead its interest must cover all areas of activity. Policies must be followed everywhere in the company. Implementing instructions, sound in nature and understandable, and intelligently developed control systems are as necessary in the operating department as in accounting. Timeliness of action and coordination with others is essential throughout all departments.

Actions can take place in any department that will affect, adversely or otherwise, overall company activity or customer or employee relations. Managers everywhere should have data that will tell them whether they are doing a good managerial job.

So the internal auditor with a management viewpoint will be attempting to appraise the performance of various departments as to such matters. How far he goes into these matters will depend, of course, on the wishes of his management. In some companies he will have wide latitude; in others he will be restricted. However, irrespective of the area he covers he will always endeavor to be a management-minded auditor.

Let me cite some factors to be considered in the practice of this new concept:

1. In the field of financial auditing there are uniform, standardized rules and guides for appraisal. Over the years certain principles have become generally accepted. Performance is measured against them. The financial auditor has rather complete road maps to guide him in his appraisals.

2. When the internal auditor leaves his area there are no such road maps to guide him. He must acquaint himself with varied operating conditions. He must learn the expectancies of his own particular management. He must apply these to non-uniform situations, using his analytical and reasoning powers, in order to appraise performance.
3. Actually he will apply to these new situations many of the basic techniques with which he became familiar in financial auditing. He will seek source data to see whether they substantiate summary reports rendered to operating management as to various activities—status of work, flow of operations, etc.
4. The entree into almost every examination is through the medium of records. Every organization makes original documents and maintains resumés of work. These documents may deal with dollars, quantities, time, percentages of completion, or other symbols of activities. They can all be audited as to their integrity.
5. Although financial auditing techniques—plus others—are used, a financial auditor cannot expect to be successful immediately in this new field. He must serve a period of internship before he can use his instruments properly. He is operating under strange conditions. It will take time for him to recognize how to apply his techniques.
6. It will take time, also, to re-orient his thinking—to apply the appraisals, perspectives and tolerances of management. An operating action cannot be judged as rigidly as an accounting entry. There must be an absolute balance in dollar accounting. In some operating figures the maintenance of such precision might be out of all proportion to the cost. Judgment—not rigidity—must be applied.

ILLUSTRATION

A primary point to bear in mind about management auditing is that it is not where you audit but how you audit.

The management slant should enter into audits of both financial and operating matters. We look for accuracy and propriety of accounting, but we take another look and seek to determine whether there are sound and applied controls over the various operating, as well as accounting activities which these figures represent, and whether anything noted in the examination suggests conditions that would concern a manager if he were aware of them. In non-accounting areas the data dealt with are somewhat different than those in financial ones, but the dual scrutinies of accuracy and business effect are similar.

I cannot do more here than illustrate the application of management auditing techniques. In a variety of industries such as petroleum, aircraft,

steel, retail houses to mention just a few, this concept of auditing has been carried out and has been of real service to management.

Not all companies will perform all the specific examinations I am to cite. Type of industry, company, management wishes, the presence or absence of objective company specialists, other than the internal auditors, will determine this. Nevertheless, these illustrations will indicate the general approach.

First, some illustrations in the more familiar areas, those directly or closely related to accounting offices:

Customers Accounts. We know that one of the greatest concerns of a sales manager is to have his customers satisfied with their treatment, since continuing patronage is the backbone of his business; so, in addition to verifying balances, we try to be alert to indications of customer reaction to our products and services of all kinds. To that end we seek comments from customers through specially designed confirmation letters, and by analyses of correspondence files.

Credit Matters. In addition to aging accounts and examination reserves for bad debts we shall appraise the adherence to the company's credit policies; look for indications of either loose or over-rigid credit administration; check on the aggressiveness of collection efforts; analyze the causes for write-offs, to determine whether policy derelictions were involved, and study the satisfactoriness of credit correspondence.

Inventories. In addition to the usual reconciliations and judgment of reasonableness of net loss write-offs, we shall give some managerial thought to the situation. Does the total number of errors, irrespective of net results, suggest inefficiency or system weakness in the accounting office, and/or in the stores? Bear in mind, too, that inventory records are often used as bases for procurement activities; errors in them could, therefore, result in short or excess stores. Are materials stored in an orderly manner, so as to be readily available for shipment? Where there are time storage limitations for certain articles, are such materials so arranged that the oldest items will be disbursed first, preventing obsolescence losses, etc.?

Now, let me illustrate management auditing in less familiar fields. All I can do is to touch on a few items out of many in each area. In these areas, we do not pose as experts on the technical matters; we, of course, learn all we can as to practical operations. But there are many matters, controls of various kinds, accuracy or reports, timeliness of activities, etc., that are well within our competency.

Purchasing. Is there a controlled program of calling for bids, so as to obtain best prices and prevent favoritism? Is it being followed? Are com-

modity records adequate and current? Are there indications that operating departments are usurping the purchasing function by over-use of "confirming" orders? Is there an undue amount of "rush" orders?

Company Containers. Beyond reconciling accounting records, we analyze them to determine whether employees are prompt in picking up empties, so as to obtain the greatest activity out of them and prevent additional, perhaps sizable and yet unnecessary outlays of capital for additional equipment.

Reclamation. Here is an activity common to many industries, one that requires strong controls to prevent fraud, and one that can produce considerable profit to the company—the basic objective of such an operation. Beyond an examination of the soundness of various controls, the auditor's studies might develop information on such matters as; Is reclamation being performed by outsiders that could be more profitably done by the company itself? Are inspection activities sufficient to prevent usable material from being sold as scrap? Are all departments properly circularized as to use of reclaimed material? Are records of operations sufficiently analytical, so as to guide reclamation policies?

Gasoline Losses. Are they scientifically analyzed, so as to detect leaks or fraud? This involves an understanding and application of the effect of various temperature factors.

Oil Field Activities. Are production records accurate? Are state proration requirements observed? Are pipe line gaugers rotated sufficiently, to limit possibilities of collusion? Are computations involving gravity, sand and water, and temperature carefully performed? Are there proper records to detect crude oil losses, and are they diligently used? Are gasoline-content tests on lessors' wet gas made according to schedule? Are drilling contract terms observed by the contractor, as to charges for shut-in-time, tool maintenance, special tests, etc.?

Highway Transportation. Is there sufficient control over gasoline and repair parts? Are inspection tests of vehicles made on schedule?

Technical Services. In such companies as aircraft, certain people are assigned to test the accuracy of various instruments and equipment. We cannot pass on the quality of the technical work, but can determine whether they are keeping up with established schedules, etc.

Time Standards. Another study in a factory. This department is responsible for developing time standards for various factory operations. They are used in budgets and forecasting. We don't make stop watch studies, but we can determine some useful facts. Are there definite written instructions as to the methods and bases to be used in developing standards? Are computa-

tions on work sheets accurate? Is management informed as to how closely standards meet the accuracy objectives established? Do improvements in production methods result from the efforts of time standards?

And now for one that might seem as though the internal auditor was going far afield—some studies in an aircraft engineering department. They are made as a result of top management desires.

Engineers design products and make the drawings for factory use. Obviously we are not competent to determine the technical quality of the work, any more than we can judge the technical performance of geologists, chemists, physicians, etc. But in all such company organizations there are policies, schedules, and controls to ensure orderly and efficient operations.

We can examine the accuracy of data, see if reports to higher levels are substantiated by source data; see that expected controls exist and are effective. What can we do along these lines in an engineering organization?

Among a number of checks, I cite a few:

Are adequate records maintained to ensure that management is not committed to undertake more work than there is manpower available; and are these records accurate and up-to-date? Does management have schedule control reports, so that it knows status of work by groups, and are these reports complete, accurate and substantiated by source data? Are drawings checked, and attested to by the checker prior to release? Are significant errors noted by checkers? Are analyses prepared for management, showing number, type and cost of errors, so that weaknesses may be recognized and corrective action taken, and are these reports substantiated by source data?

In all of the illustrations cited you will recognize the basic auditing technique of checking the accuracy of reports by reference back to source data, and checking procedures and adherence thereto. Obviously, there are other things the internal auditor must do. He must acquaint himself with the functions of various people and he must acquire some knowledge of the operations and general methods of the organization, so as to work intelligently.

RELATIONSHIPS WITH CPAs

Whenever certified public accountants and internal auditors get together in a meeting, so often someone is asked to speak on the subject of "cooperation" between the two groups. Many of these talks follow a regular pattern, such as the matter of internal auditors furnishing reports and working papers, etc., to the outside auditor. The subject has become a little threadbare.

The words "cooperation," "collaboration," "coordination" have a common prefix—"co," which means "together," so that all these words simply mean doing things together, living in viewpoint and action on a two-way road. We don't work *for* each other, we work *with* each other—we are associates.

The internal auditors and the outside auditors perform individually in their own specialized fields, but seek to aid each other in their sometimes parallel fields of responsibility and service. In those areas, by discussion and mutual agreement, they will harmonize their efforts to the ends of efficiency and economy of operations.

So we are men, if you like, who understand the meaning of the prefix "co," and act accordingly. With such an attitude of mind, details of working papers, reports, schedules, joint participation, etc., will fall in line automatically.

The two professions, although having some differing objectives, do have certain common aims and hopes; and in regard to these we can collaborate for a common purpose. May I suggest some of these areas of collaboration?

1. The ultimate responsibility of the outside auditors is the assurance and certification that the financial statements issued by the company whose affairs they are examining, indicate truly the financial conditions and facts of the business.

Internal auditors also seek this assurance, and they are constantly dealing with the basic data from which the financial statements are made. They have the opportunity, therefore, to reach deeper into the integrity and soundness of the figures than perhaps the outside auditors can in the time at their disposal.

The work of the internal auditors in this area will bring to the outside auditors a greater degree of assurance in the fulfillment of their prime responsibility for certification.

This examination of source data of all kinds is not a question of the internal auditors working in a tributary capacity to the outside auditors. They are doing that which is one part of their over-all program of assistance to management, but such studies are also quite useful to the outside auditors. The mutual value of this work will be increased by frank and intelligent understandings and arrangements between the two groups.

2. In this general area, there is the matter of sound internal controls—the question of whether there is a sufficiency of solid, efficient and automatic safeguard mechanisms installed into the movements and recording of accounting documents. The presence or absence of these

safeguards has a material effect on the confidence which both outside and internal auditors can place on business records.

Although the internal auditor is also concerned with internal controls that are not directly related to accounting transactions, there is certainly a large area of common interest to both professional groups.

3. Many managements today, while recognizing the values of auditing, are quite concerned with the costs involved. It is well that both outside and internal auditors face up to that fact, and govern themselves accordingly.

Business men are realists. They will not, for too long, spend beyond what they believe brings corresponding returns.

In those areas where both professions are working on company audits, there is a grim necessity for open-minded, intelligent planning and agreement to eliminate overlapping of coverage to the greatest extent possible. It is long-range wisdom for both groups, and there should be a mutual cooperative effort to that end. It is quite possible to produce sensible economies without destroying the essential independence of either group.

Obviously, there are areas of auditing where some overlapping cannot be avoided. There are certain assurances which the outside auditors must have, irrespective of what the internal auditors may do. And there are certain areas where, for the pursuit of a management phase of auditing, it may be necessary for the internal auditor to touch, at least in part, on some matters covered by the outside auditor. Nevertheless, I am sure that a sincere mutual attempt to limit duplication of effort will yield quite desirable results.

4. Beyond the cooperative efforts of the two groups in the auditing affairs of specific companies, I advocate a continuing increase in the contacts of the officers of THE INSTITUTE OF INTERNAL AUDITORS. This should be done in order to consider ways and means of discussing known areas and discovering new areas of mutual cooperation.

So much then for suggested specific areas of collaboration. Let me return to generalizations once more.

Clear thinking members of both professions have a deep respect for each other's contribution to the business world. They realize that while each has a unique and independent service to offer, they share in the common aim of assisting business not only to sound and profitable operations, but to the publishing of financial statements which shall be factual, both as to stated figures and as to what they imply. Because of these areas of common aims, they will help each other in every possible way.

Public accountants demonstrated this vision of the benefits of collaboration by their efforts over the years to bring home to managements the value of internal auditing in the affairs of a company. Public accountants gave major assistance in the establishment of a chapter of THE INSTITUTE OF INTERNAL AUDITORS in San Francisco. They met with me to discuss ways and means; and then they went out and sold the idea to others. With their wide business connections they were able to bring quite a number of internal auditors into the chapter. That was an illustration of real cooperation.

Why have your members given such support to us? Not merely because they enjoy organizational activities. I am sure it was primarily because they believed that the recognition and growth of internal auditing would be a progressive step in the business world, and one which would mean much to them.

We, as internal auditors, I believe have cooperated in this objective by seeking to prove ourselves useful to management, and are doing our part toward the over-all common aim. Each group, performing its particular part in the business world, is thus working with the other. We are cooperating.

I repeat that I am much more interested in discussing cooperation, collaboration, or what have you, on the broad planes of accomplishing major aims than I am in the details of working papers, etc. If we have the larger purpose in mind, the detailed activities will fall in line.

CONCLUSION

I have discussed primarily three major matters:

1. The gradual development of internal auditing concepts and activities, from the time when the activity was largely a checking of the mathematical accuracy of certain records to its present status as an important element of managerial control.
2. The application of this concept of managerial service—the approach, objectives and techniques—amplified by specific illustrations in various company activities.
3. Collaboration of internal and outside auditors.

I hope I have succeeded, at least to a reasonable degree, in picturing for you the gradual evolution of internal auditing, and delineating more clearly the nature of the activity we term "management auditing." We shall never desert the valuable and necessary services which were embodied in our earlier activities—protection of assets, accuracy and propriety of accounting entries. Those services are still an important segment of any internal auditing program. However, we no longer consider that our principal objec-

tive, and our greatest achievement is the burrowing into records to detect dishonesty. Although we have a full appreciation of the importance of clerical accuracy in regard to accounting entries, we know that we must see through and beyond the figures. We cannot live in a world of digits and columnar paper, per se. We must concern ourselves with the actual activities which such figures represent; and we must go out and become acquainted with them.

So the progressive internal auditor has glimpsed broader horizons. He has entered wider fields of usefulness, and sees still others ahead. Certainly he cannot help but believe that under its present concept he occupies a position of greater constructive value to his company than in the past.

Our organization is, of course, a much younger one than yours. But as we look back over the years we find encouragement and satisfaction; and as we face the future we do so with enthusiasm and a firm belief that we shall continue to be a vital and progressive group, contributing in still greater measure to the success of the companies which we serve.

A VALUABLE BY-PRODUCT

By ROY E. TUTTLE
Assistant Professor of Commerce, University of Wisconsin

Valuable advantages can be gained by the use of electronic data processing techniques to handle repetitive transactions. Speed, protection against error, and economy are important by-products. The author handles a technical subject in simple, everyday language, and illustrates his points with practical case studies.

IN most manufacturing operations a by-product is something of minor value that must be put up with—but minimized when possible—to acquire a primary product. The intent here is to emphasize the possible advantages of securing as a result of an existing clerical operation, or by modification of operations, a BY-PRODUCT. Before discussing the problem, it is necessary to create the setting.

IMPORTANCE OF INTERNAL AUDITOR—RECOGNITION OF NEED

Business management is finding that as a result of decentralization and increasing complexity, the organization and digestion of business data is at the same time more difficult and more important; the problem is not one solely of bigness. A challenge to each member of a management team is the extension of his efforts so that there may be distilled from routine paperwork more complete, useful and timely business information to be secured in the least costly method consistent with adequate control.

A great number of articles on the subjects of Electronics and Data Processing have appeared in business and professional magazines and periodicals during the last few years. Most of the articles have been either technical in nature or descriptive of specific systems in operation. Few have been directed to emphasize the important contribution that can be made by the internal auditor toward conversion or introduction of data processing into a system to take advantage of repetitive data.

Day in and day out the internal auditor is called on or expected to perform many diversified assignments. A few of his more important responsibilities include the review of specific operations for consistency with existing company policies, verification of the existence of effective internal control, conduct of special studies as requested by company executives. He works with the forms, statements, records, and reports of the company. It is the performance of his varied duties that allows the internal auditor to become intimately familiar with the clerical routine of the enterprise. He is

in a unique position to render valuable advice on system review, since he gains an overall perspective of existing conditions.

INTEGRATED DATA PROCESSING

One of the basic characteristics of integrated data processing is the recording of data in a mechanical operation in such a manner as to make possible not only the preparation of an original source document or the accomplishment of a primary operation but also simultaneously to produce a by-product tape or card. There is a wide choice among machines that can be effectively employed in an integrated system of recording, communicating and processing. Attachments can be secured for such machines as production recorders, typewriters, bookkeeping machines, calculators and adding machines; in addition, there are specially constructed mechanical equipment incorporating the output device.

Information is put into the tape* by means of either a punching device to pierce or punch holes in the tape, or by printing inked spots on the tape. The data is permanent once it is placed in the tape correctly. The code used in recording into the tape is recognizable by the particular make of equipment that produced it or by other machines designed to translate it. The tape is a connecting link between machines, a means of transferring data from one machine to another; in other words, it is a "common language" of machines. The object of data processing is to reduce specific source data to the common language for future disposition dependent upon the needs and desires of management. It can be "re-translated" into punched cards, used to create forms similar to the form from which the tape was created, converted into subsequent reports, fed into electronic computers, as well as left in the tape for economical storage. It is possible to produce two different tapes as a by-product of one operation. When this arrangement is installed, a program functions to select, automatically, any part of the information to be recorded into either or both tapes.

SYSTEM REVIEW

When the internal auditor observes that his company may benefit from the introduction of data processing into a particular phase of operations,

*The remainder of this discussion will treat the tape, but relates equally well to a card output.

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he should make a recommendation for consideration to the proper company official. A final decision for the introduction of integrated data processing to accomplish a given end, can be made only after a complete analysis of the existing system and routine. It will be necessary to obtain, from each office or function, an analysis of forms and reports presently in use, to acquire completely executed forms and reports for a study of content, to determine from forms the highest daily load, and to secure, internally, suggestions and criticisms of existing procedures and results. If the study involves a procedure that results in an externally used form, suggestions and criticisms should be solicited from the users as to location of data, terminology, size and related factors. A good approach to include in the study would be a negative one which requires justification for retention of present information or procedures. Certainly, final conversion of the system would necessitate the cooperation and suggestions of specialists of both equipment manufacturers and form printers.

Although the system review and study is usually made by a systems and procedures group, the recommendation for the study and the suggestions as to possible benefit should often generate in the internal audit department.

SPECIFIC SYSTEMS

This article is designed to create awareness of possible situations or operations from which benefits can be derived through data processing. There are a number of general operations where conversion is possible.* Two of these operations will be discussed in some detail, while several others will be commented upon.

(a) *Requisition-Order*

Figure 1, (page 22), illustrates a requisition-purchasing system which incorporates two sets of pre-typed tapes. "Vendor Master File," maintained in the purchasing department, consists of a file including a separate tape for each vendor. Each tape contains the following data: vendor name, vendor address, vendor code number, "ship to" information, ship via, shipping point, "bill to" information, and credit terms. Each tape would be filed in an envelope. Vendor name and/or vendor code number would be clearly written on the envelope face. "Traveling requisition file," containing the second set of tapes, is located in the storeroom or stock records department, dependent upon assignment of authority to initiate the purchase requisition. Each tape of this set contains such data as: item description, item code number, contract price if agreed upon, and any other information or specifications essential to identification and proper order. The travel requisition envelope identifies the tape, it contains such data as list of vendors names or num-

*See *How Flexowriters Integrate Data Processing*, Commercial Controls Corporation, Rochester 2, New York.

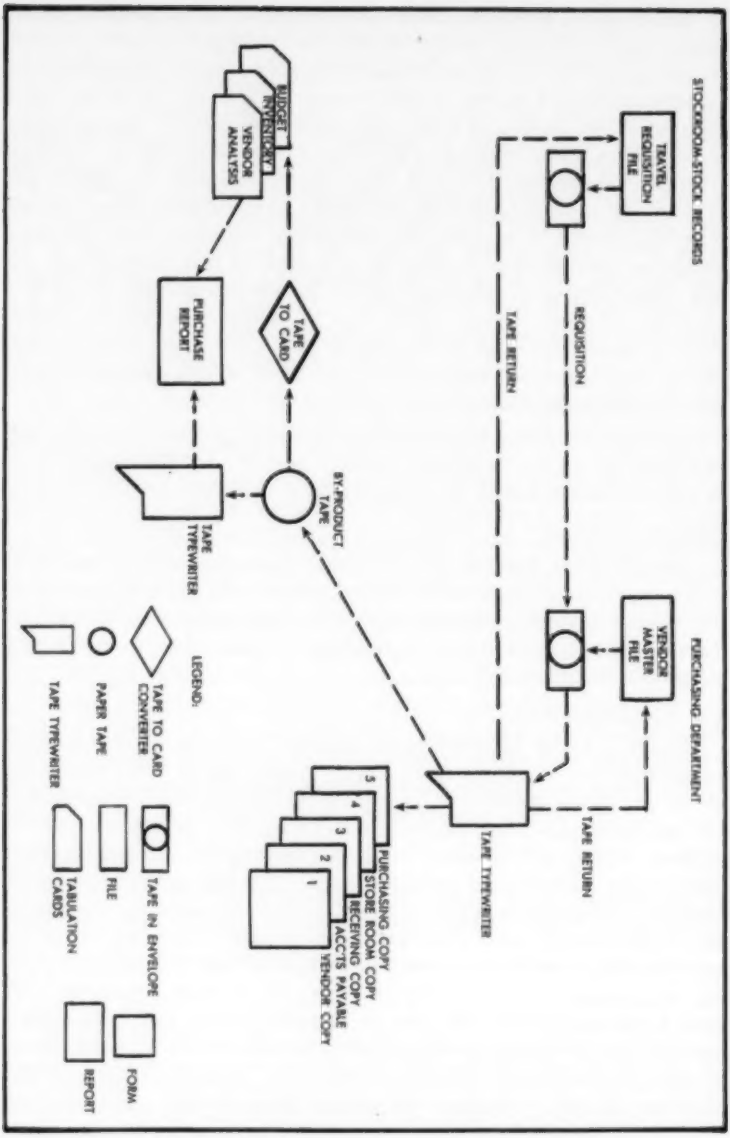

FIGURE 1. Requisition-Order System Using Paper Tapes

bers who supply the item, the minimum and maximum inventory quantities, and might also include an area in which is marked the number of units on hand at the time the requisition is dispatched.

To requisition an item, the traveling requisition envelope, containing the tape, is routed by the storekeeper or store record clerk to the purchasing department. Purchasing decides upon the quantity and the source by their usual methods. The vendor tape is pulled from the "vendor master file" and the two tapes are fed into a tape typewriter. The machine operator must manually type in the date of the order, date desired—if specified, and the quantity of the order—unless predetermined quantities are included in the tape. All other data to complete the purchase order is inserted mechanically. In the process of typing, a complete by-product tape is secured for use to subsequently produce tabulating cards, typed purchase reports, or, if the company follows a policy of sending out a "request for quotation," the by-product tape of the vendor from whom the most favorable quotation is secured can be used to type the subsequent "purchase order"; only the date of purchase and accepted price must be inserted manually.

Within a system similar to the one described above, it is important to recognize the potential benefits. (a) The "traveling requisition tape" has eliminated the necessity for a clerk to type out a formal purchase requisition. The use of the tapes has minimized the typing that must be done in the purchasing department. These two reductions in typing item descriptions and item classification numbers minimize the errors commonly made in purchasing routine, in addition to the complete elimination of one form. There is a considerable reduction in the amount of clerical time that must be spent in form proof reading. (b) Unlike clerical operators who tend to slow down or decrease in efficiency as a day progresses, the machine types at a constant rate while in operation. (c) There is produced automatically a by-product tape that can be used for subsequent forms, reports or tabulations without manual re-copying of information.

(b) *Sales Order-Production-Billing*

Figure 2 (page 24), illustrates the use of the tape to transmit data between locations, as well as to provide the necessary internal forms for specific locations and activities of the enterprise. As the reader follows the flow, he must recognize to the point of billing the only major typing operation is the production of the "sales order proof" at the sales branch. This flow and the discussion is prepared from information written up in great detail in Paper Simplification for Better Management Control "Alcoa's Way with Orders."* For brevity the diagram consolidated certain operations.

*4th quarter 1954, number 36, Standard Register Company, Dayton 1, Ohio.

SALES BRANCH
SALES ORDER TO PRODUCTION
PRODUCTION OR MILL
HOME OFFICE
CUSTOMER TAPE FILE
SALES ORDER ABSTRACT
SALES ORDER PROOF COPY
SALES ORDER TAPE
SALES OFFICE
SALESMAN
CREDIT
ACKNOWLEDGMENT
FILE
SALES ORDER
PRODUCTION PLANNING
TABULATING
TELETYPE
RECEIPT
SALES ORDER TAPE
FOR HOME OFFICE USE FIVE COPIES
PLANT FILE
ALLOTMENT-BRANCH
ALLOTMENT-DISTRICT
PLANT MASTER
HECTOGRAPH CARBON BACKING
SEVERAL COPIES FOR MILL OFFICE, PRODUCTION PLANNING AND OTHER USES
ADDITIONAL LEGEND:
DENOTES TRANSMISSION
TAPE TRANSMISSION

FIGURE 2.

Each of the "sales branches" maintains a file of customer tapes; each tape containing the information common to all sales to that customer. When an order is received a sales order abstract is prepared of the variable data of that order; this abstract and the customer tape are routed to a Flexowriter operator who prepares the "sales order proof." After verification of the accuracy of the information in the proof, which information was simultaneously entered into a punched tape, the information of the tape is fed into a teletypewriter for transmission to the home office and for preparation of the necessary branch copies of the order. Upon receipt at the home office, another tape and four copies of the order are prepared. The home office tape is used to transmit the data to the selected plant. In the process of transmission the home office secures five copies of the order for various home office uses. The receiving unit at the plant prepares four copies of the order; the "plant master" copy backing is hectograph carbon. The "plant master" can subsequently be used to produce the needed planning, milling and shipping advice copies. Billing and shipping require the production of new forms through an additional typing operation; this is not inconsistent with data processing as much of the data entered is initial.

The purpose of using a particular system for discussion is to illustrate the amount of data that is standard to a paperwork routine. One basic typing has supplied a means of sending the data at the speed of light at an output of approximately 60 to 100 words per minute with little chance of transmission error. Distance is impressive in the illustration on page 24 where plants and sales branches are widely dispersed; many of the problems are basic even if the sales office and the plant and billing are in the same building or vicinity.

It is not necessary that the system be as elaborate as the one described to derive many of the advantages of repetitive data common to the sales order, production order and billing operations. Instead of wire transmission, the sales orders and the by-product paper tape could be mailed from the sales branch to the home office. Wire transmission is merely a method of transportation of words; once at the home office, the tape is available to reproduce the sales order data more accurately and rapidly, for subsequent uses, than manual reproduction. The same is true of the communication between either the sales branch or the home office and the factories.

(c) *Other Adaptations to Data Processing*

For companies that distribute their products through inventories maintained at sales branches, an output tape prepared by the sales branch as a by-product of preparing the invoice or packing slip contains all the data

for subsequent billing, inventory controls, production planning and control, and sales analysis.

Paper tapes prepared as the by-product of payroll operations contain all the information for cost distributions, and for the various payroll reports.

Tapes emitted as a by-product of preparing the purchase voucher can be used for inventory control, purchase analysis, budgetary controls, cost distributions and similar applications.

CONCLUSIONS

As one member of the management team, and at the same time the provider of information and guidance to other members, the internal auditor must be aware of the possibilities of incorporating into an existing system the necessary adaptation to present equipment or sufficient new equipment to reduce the cost or time of accomplishing specific operations. He must observe operations for evidences of use of repetitive data.

It is impossible to discuss or diagram all possible situations. It is possible, however, to point out potential advantages to be derived from such an integration of operations.

1. The review of an existing system or operation can result in savings to the enterprise even if data processing does not result. The raising of questions as to possible modification and integration to achieve the benefit of repetitive data may expose "conventional" procedures within the system that can be combined or eliminated.
2. The introduction of data processing may result in a reduction of clerical costs, either because there is a reduction of the manually performed repetitive operations—let a machine do it—or because of the reduction in clerical errors. The tape can be corrected; however, operators tend to be more conscious of the effect of an error and may type at a slower speed to minimize them. If that is a more accurate speed, the net output may actually increase.
3. The introduction of data processing will probably necessitate redesigning existing forms and reports. The result can well be more efficient location of data and more concise explanation to increase clerical output. "By form design alone—aside from other elements of the revised procedure—one company cut sales order "words" by a striking 30 to 40 percent. Irrespective of mechanization of record preparation, there is that much less total matter that needs to be written on the 'sales order' and read by people receiving it."

"Today practically all orders are completed on a single page. Formerly that was true with possibly one-half of them."

4. The introduction of integrated data processing can increase the timeliness of information and reports; time is more and more important competitively. "Customers are assured that an order completes the circuit from the sales office, to the network center, to the plant on the same day it is transmitted from the sales office."

Some work does not lend itself to mechanization. At some point during the preparation or processing of documents, however, the work usually becomes standardized and routine, and information repetitive. Data processing can often be economically introduced.

The internal auditor is not expected to make a detailed review of the system in force prior to his recommendation for possible use of integrated data processing. His observations and understanding will allow him to make a considered recommendation where there exists potential benefit from a system study.

INTERNAL AUDITING OBJECTIVES*

By DONALD S. GRUBBS

This article, written over ten years ago, expounds on some basic principles of auditing, particularly with regard to approach, report presentation and operational auditing. It provides some useful guideposts for enabling the experienced internal auditor to appraise the effectiveness of his activities.

AT the beginning let me clear up one important point about internal auditing on which there is a lot of misunderstanding, even by controllers and auditors sometimes. Internal auditing—merely for the purpose of detecting or preventing fraud—will not pay dividends in most businesses. If your conception of internal auditing is, that by fraud detection and prevention, it will save your company money, I would not recommend an internal audit program for your company. The detection of fraud by auditing is an expensive process. Most frauds are detected by other means anyway and insurance can be secured at a nominal cost. The prevention of fraud can be accomplished by a good procedure without all of the expensive checking which an auditor does.

What, then, is the purpose of internal auditing? Certainly we want fraud prevention and fraud detection. As in insurance, we cannot afford to be without it. Internal auditing is the best insurance we can get against fraud; but, again, as in insurance, most of us lose money by carrying fire insurance because premiums usually exceed losses.

Another common misconception with respect to internal auditing is that it serves as a substitute for a lot of detailed work by public accountants. I disagree with this thought. In my opinion they are two different animals—probably with the same ancestors. They should supplement each other but neither can take the place of the other. I realize that some of you use your internal audit staffs as public accountants except that they do more detailed auditing. I can take no violent exception to this practice except that I do not think it is worth what it costs you. Again, I must be sure that you do not get the wrong impression from what I have said. I did not say detailed checking is unnecessary. I did say that it is entirely different from that which a public accountant should do.

*Reprinted from the Controller, February 1946.

In my opinion, the internal auditor's approach to this problem is through the organization chart rather than through the balance sheet as in public accounting. I say, let the public accountants worry about the balance sheet. It is their job to protect the public and the stockholders. We will help all we can, but it is fundamentally their job. Our job is to help management to do its job in operating the company at a profit. In fact, I believe that is the only justification there can be—not only for internal auditing—but for anyone who is carried on the payroll. If we cannot do that, internal auditing is very expensive insurance.

When I say the internal audit approach is through the organization chart, here is what I mean. In every company, large or small, there are certain functions which must be performed if the business is to be operated profitably. There is a sales function, purchasing, industrial relations, treasury, accounting, legal, traffic, engineering, operating, production scheduling, public relations, research, and such, with all their sub-divisions. These may be combined in many ways, but they are all performed in one way or another, and neglect of any one of them may easily cause losses. Management must recognize these various functions and must assign the responsibility for them to various individuals, depending on the size of the operation.

Top management will outline certain principles and policies within which subordinates should operate. In turn, these subordinates delegate responsibilities to lower levels, and so on until provision has been made for doing everything which is considered necessary. Unfortunately, most of us are not smart enough to think of everything that needs to be done. Furthermore, top management cannot see everything that is done, or if it does, it does not have time to figure out what are the results. In addition, people are funny—they do not do the things they are told to do.

THREE OBJECTIVES

Therefore the objectives of a good internal audit program can be summarized in three brief sentences, namely:

1. See that people are doing the things they were told to do; i.e., following authorized policies and procedures.
2. Ascertain if the authorized policies and procedures provide adequate protection against loss at a reasonable cost.
3. Observe opportunities for increasing profits.

I believe that that is what internal auditing can do and should do. If the internal audit staff does a good job of it, I believe management will have its insurance, fraud will be prevented or detected, and internal auditing will be proved to be profitable.

It is important that the three objectives be considered as to relative importance. Please note the order in which I have listed them. The first thing which management has a right to expect from its audit division is assurance that its decisions as to policy and procedure have been followed. This is where most of the detailed checking is involved. Probably 90 per cent of the auditor's time is spent on this phase. By making these detailed checks, the auditors are able to help supervisors to perform the job for which they are responsible. Whether it means checking a payroll back to attendance records or reviewing inventories for obsolete stock or checking a contract termination, it all comes under the heading of seeing that people did what they were told to do. The fact that such checks are made is in itself some assurance that instructions will be followed because they don't want to be reported for not doing so.

In addition to wanting to know that its instructions are being followed, management has sometimes found that it did not have all of the facts when the decision was made, or that something new has occurred which they did not consider when the policy was decided. For example, let us assume that management decided that foremen should prepare daily reports of production, but that since that time, the plant has expanded to the point where either the foreman is spending most of his time doing this with resulting loss in plant efficiency or he is unable to do a good reporting job and the company thereby loses control over payrolls, costs and inventories.

It is up to the auditors to see these things and to point out to management whereby its instructions should be changed. You may answer that you expect your regular line organization to see these things and to correct them. Certainly you do—and so do we. The fact remains, however, that they don't –often because it just grows up while everybody is too busy to realize what has happened. The auditors are able to provide a fresh review which others cannot always make so well because they are too close to the trees to see the forest. Therefore, the second objective of ascertaining that authorized policies and procedures are effective is very important. This objective can be accomplished usually at the same time as number one.

PROFIT MOTIVE

The third objective is the one which causes trouble. Observe opportunities for increasing profits. Too often have I heard someone say "how can

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that young whipper-snapper be so presumptuous as to think he can tell me how to run my job; he has been here three days and I've been here twenty years." That is a hard question to answer. In fact, there is no satisfactory answer that I have ever heard. I know that some of you controllers feel that same way about it. In the long run the only answer that I have ever been able to find is—"produce."

If the staff has wide-awake men with initiative and good judgment, it just cannot help seeing these things. Naturally, they will make a lot of mistakes. They will be wrong in their conclusions. But once in a while, they will get something worthwhile, and after a couple of these ideas are accepted, management will really put on the pressure for more of them. It requires all the tact and diplomacy and salesmanship that can be developed to get acceptance of this type of auditing. But, once accomplished, this is the part of the audit program which can produce tangible evidence of profits from auditing. Without it, you are not getting full value for the money you spend for auditing. The other objectives are the most important—they must come first— but if you can superimpose this layer of profits—with a dollar mark on it—then you know that you are getting the other two layers free of charge.

I am never too much impressed by preventive auditing. Sure, it is good —but how do I know that it is? I am reminded of that English story about the man in London, who was spraying powder all along the streets of London. Someone asked what it was and he replied that it was "lion powder" and would kill any lion that touched it. "But there are no lions in London," the other replied. "Yes, I know that," said the other, "but if there were, this powder would kill them." Maybe some of our auditing has too much lion powder in it.

Many auditors are inclined to be theoretical rather than practical. I think this is as it should be. There are certain principles of internal check and control which can be applied to almost any set of circumstances and I think it is up to the auditors to point out where these are not exercised so that they can either be corrected or at least so you will know where the loopholes are. At the same time, it is my experience that you gentlemen, as executives, and the others in your companies will do very little to fix these weaknesses merely as the result of your auditors telling you that there is a weakness. Usually there are only two things that will make you move insofar as control is concerned. The first of these is definite and specific evidence that a loss has occurred, and the other is the possibility of saving money. When the auditor talks general principles of control, our heads nod in agreement but—"we'll fix that when we get time."

This condition is the one that makes auditing so costly. It is the constant demand that reports be factual. So—the auditors go after facts in order

to prove to you that a weakness exists. Actually, I think you or many others in your organization could point out the weaknesses in your systems in a very short time merely by reviewing them without doing any detailed checking. But, no—we must have proof. So, that is the reason your auditing costs so much money. Don't get the idea, however, that I take issue with you on this point—I am merely pointing out a weakness in human nature with which auditors must contend.

There is no audit program and no audit report that is worth any more than the results that are secured from it. The best audit report in the world may be reposing peacefully in your desk. That report, however, is not worth the paper it is written on unless you take it out and do something about it. You may have wasted many dollars worth of time by having the audit made. But it is not your fault if that report got to the bottom of the pile. It is the fault of the auditor. For some reason, he did not get his story across.

A good course in journalism should be very beneficial to all auditors. We have to learn to write audit reports on the same principles that are used, for example, in various illustrated weekly publications. Very few people do not enjoy getting their news through such a magazine. Why is that? I think it is because it is brief, to the point, and amply illustrated. If audit reports could be written in that manner, I think you would read them eagerly, also. I know of no reason why they cannot be written like that.

REPORT PRINCIPLES

There are just a few principles that must be observed to get the story across.

1. The auditor must distinguish between important and unimportant matters. There is nothing as good a cure for insomnia as reading a long report containing many detailed recitations of conditions which mean very little to the person reading the report. If there is one important thing in the report and it is buried in forty pages of minor clerical errors, and such, I doubt very much if you will even recognize it when you come to it. How many times have you started to read a lengthy newspaper article which sounded interesting in the headlines, but after reading the first paragraph carefully, you skim through the second paragraph quickly, and then turn to the next page? And then, later, someone tells you of something important in that article that you missed. That difference between certain newspaper writing and some of the popular weeklies illustrates what is missing in audit reports.
2. Audit reports must be brief in order to hold the attention of the reader. But, be careful—don't go too far in the direction of brevity. Brevity is a virtue only to the point that the complete story is told.

If the matter is worth mentioning, it is worth telling enough of the story so that the reader can use it without having to refer to another set of papers or call in the auditor to explain it. Too much brevity is worse than too little, because the reader may reach false conclusions—and that's the auditor's fault too.

3. It may be advisable to write several reports on one audit, depending on who is the person who should take corrective action. There are many different kinds of executives. Some of them like a lot of detail. Some desire only the highlights. To some of them, one thing is important; to others something else is important. We should try to write our reports as though we were writing a personal letter to each individual who is expected to make a decision. For example, if a certain matter requires decisions by a paymaster, a treasurer and a controller, it may be advisable to write three separate reports or sections to a report, rather than to try to write one report for all three. Maybe the paymaster makes decisions on minor phases of the matter, in which case you give him all the detail. The controller should be able to grasp the principles quickly so you need give him only a few brief examples as an illustration of the principle involved. The treasurer may not be up on his principles of internal check and control, so you have to tell him why the thing should be fixed. The objective is to get action; so, write your reports to the man who should take action.
4. Be specific. As mentioned before, most of us have to be shown. It is not enough to say that weaknesses exist or losses might occur. We must not say that as a result of scales not being tested regularly, losses may occur. We must rather say that scales have not been tested for sixteen months, tests have been made and disclose that they are 5 per cent low and as a result, customers have been underbilled by $17,226.98 during that period. The latter statement will get action. Maybe the first statement will get action and maybe not.

SUPPORT FROM TOP MANAGEMENT

Now, the question that is always raised in any discussion of internal auditing is, "what do we audit?" How far do we go? My answer to that is—go as far as you can and still get support from top management of your company, depending upon the ability of your auditors. No audit program is any better than the ability of the men who make the audits. I have seen auditors develop the fact that a purchasing department was not using good judgment in its buying policies even though these auditors had never been inside a purchasing department before. I have seen auditors develop the fact that the wrong type of equipment was being used in a certain technical operation, even though they certainly could not qualify as engineers. I have

seen auditors develop the fact that transportation costs could be reduced even though they were not traffic men. I have seen auditors prove that a sales department was costing the company money, although the auditors were the world's poorest salesmen.

It is largely a matter of common sense and good judgment. There are many who confine their audit programs strictly to so called financial matters in order to be on the safe side. I agree this is the safe side. I do not agree that such auditing is as effective as it might be. The one big advantage an auditor should have over all other members of an accounting department is that he can cut across organizational lines and delve into all the underlying causes for conditions reflected on the books. This enables him to provide a coordination between accounting and all other phases of the business. I fully realize that, in sponsoring that type of an audit program, I am going to have some bad headaches. The auditors will be wrong many times. They will get only half the story. They will meet plenty of opposition and you will have to bail them out of hot water. But, I am convinced it can be done—not at once—but gradually.

ELECTRONICS AND THE INTERNAL AUDITOR*

By VIRGIL F. BLANK
Partner, Haskins and Sells

Office automation through the use of electronic data processing machines has probably caused the most radical change in accounting techniques since bookkeeping was first adopted. The auditor is faced with entirely new problems. His objectives remain the same, but he must be ready to make a complete reappraisal of his procedures.

THE accelerating trend towards the use of electronic data processing equipment in the office raises some questions of concern to all auditors —internal or independent.

1. Can we assume that business electronic data processing (called EDP) will not require a change in our auditing methods or our auditing standards?
2. Under EDP will some documents which are now utilized as audit trace media disappear?
3. Does the concentration of many critical operations in one powerful machine system increase problems of internal control?
4. How much do we really have to know about EDP to do an effective job of auditing?

As we explore some of the answers to these questions we arrive at some rather startling conclusions.

ACCOUNTING PROCEDURES

A review of the applications presently being accomplished on electronic data processing machines (sometimes called EDPM) indicates that the accounting procedures followed are not essentially different from those of the past. There has been a preservation of the accounting framework with which we all are familiar. There are source documents, books of original entry, ledgers, and detailed lists of transactions with their respective summaries. Under such a framework it seems that our present auditing methods and standards are still valid.

Our evaluations will require modification of our techniques, our exam-

*Delivered at a meeting of the San Diego Chapter of THE INSTITUTE OF INTERNAL AUDITORS.

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ination schedules will become more exact, and some of our audit thinking will be changed—but, on the whole, our coverage of subject matter and our measures for performance should remain the same.

These conclusions are based on some case studies completed recently where medium and large-scale electronic data processors are being used for business applications. In each case the approach to EDP has been to transfer to the electronic machines an already highly-mechanized accounting application. Under such an approach, the auditor has no problems which are fundamentally different than those experienced previously under punch-card systems.

The first designs of EDP systems had two basic concepts of particular concern to auditors:

1. Integrated data processing.
2. Management by exception.

An ideal integrated data processing concept would be a true "write-it-once" system. This means that any transaction would be recorded manually only at its inception. This recording could be performed on a machine which would produce a continuous tape recording of all pertinent data. For all future uses of this data within the accounting structure of the company, the tape would supply all necessary information. There would not be the conventional series of manual and machine transcriptions. There would not be the usual records showing the pathways by which the transaction traveled to its destination in some final summary or report to management. The contents of the original tape would be digested by a computer, and computer decisions would direct the data without benefit of human assistance or hindrance. Integrated data processing has as its objective the abolition of unnecessary paper shuffling which constitutes a major portion of the clerical effort within the modern accounting office. The by-products of this abolishment of intermediate records would be the elimination of transcription errors, the elimination of lost documents, the elimination of certain reference files, and the elimination of the many inefficiencies built into present systems.

Under this concept, then, there would disappear many of the control records now used by the auditor in tracing transactions for accuracy and classification.

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MANAGEMENT BY EXCEPTION

A similar situation would exist under the concept of management by exception—as applied to electronic data processing systems. The proponents of this method believe that the most effective use of the powers and abilities of this electronic equipment can be achieved only by changing our traditional accounting methods and techniques of reporting. Under this concept, there would be complete reliance on the electronic hardware to function in such a manner so that only those items requiring the attention of management would be included in the output reports of the computer. It sounds most reasonable, for example, to propose that it is unnecessary to print out an entire stock status report for all items in the inventory when only a small percentage of the items need any type of action. These items requiring action would be the only ones on the periodic print-outs. On the other hand, isn't this a rather drastic departure from our traditional reliance upon complete, visible records? It seems that, at this time, we are in an early stage of record evolution. Accordingly, we will be slow to accept in their entirety any of these plans which do not offer us more concrete assurance of reliability than the flickering neon pilot lights and spinning magnetic tape reels.

When more completely integrated systems come into being and when electronic systems are adopted based on the principle of management by exception, we, as auditors, will have to re-examine our audit programs and incorporate therein some rather extensive changes. This, however, will be no sudden action. Extensive modifications of accounting systems are difficult to accomplish within short periods of time. Current evidence indicates that we shall have plenty of time to adjust our audit programs so that we will still be able to express an opinion as to the fairness of the representations in the financial statements based on data processed by electronic equipment.

EVALUATION OF INTERNAL CONTROL

The one area, in presently-installed electronic systems, which poses an immediate problem to us is that pertaining to the study and evaluation of internal control. We have been accustomed to the generally accepted method of achieving effective control by the arrangement of the duties of various individuals. The work of one individual or department is controlled by the independent work of another individual or department. Where electronic data processors are used, in most cases, this approach will no longer be feasible.

Where internal control has been obtained within an electronic system by means other than the segregation of duties, will we be competent to judge such controls? This would appear to require some knowledge of controls built into the machine's program of instructions, of the data modification

possible from the operator's console, of the extent of access to intermediate results stored in invisible form, and of the general reliability of this new equipment.

The automatic operation of electronic data processing equipment is controlled by the stored program. The auditor should know of the means by which it would be possible to modify or manipulate this program—either during the processing of data or while the program is held for use on magnetic tape or punched cards. Here the auditor must first ascertain just what controls are possible over the programs. Once these controls are designed and built into the program and have been tested, they must be safeguarded and retained over the entire period of use of that program. Tests at intervals should be made to ascertain that the controls have not been altered fraudulently or accidentally. It should be realized that, within an EDP system, there must be control over the work of the console operator if protection of the program is to be realized. From the console it is possible to enter data into the system and to revise data stored within the equipment. Accordingly the auditor should ascertain if there exists a situation wherein the operator could gain some advantage by fraudulent manipulation of the data under process. Where there exists such a situation special care must be taken to establish equipment controls so as to prevent re-runs of certain tapes, such as those for payroll checks. At least the same degree of care should be exercised over the tape reels containing important records as was formerly exercised over their more conventional counterpart. Machine operation should be such that all entries made from the console are programmed so as to print out on a supervisory printer. This would permit visual inspection of all manually entered information. Print-out of this type should be retained as part of the records of the data processing center.

The input and output of the EDPM should be controlled in the same manner as document control is exercised in our present punched-card systems. Where this input consists partially of previously processed data stored on magnetic tape, the control of tape reels, mentioned above, should be combined with a control record system which would provide quantitative proof of that portion of the input. New data input should be under batch control until proof of these totals by independent controls has been established. These quantitative controls should then be incorporated in the data processing center control record. These are the controls intended to safeguard the input against error or the subsequent entry of previous data or the loss of a portion of a record. These are the input controls, then, which must be evaluated by the auditor.

The auditor must also be concerned with all classes of machine output. Where output is in the form of familiar, visible records, the control may

be rather conventional. However, it must be realized that in direct printouts from tapes, the printed totals are also on the tapes and are not a result of addition on the printing device. Those familiar with punched-card printers will recognize this difference in the method of obtaining totals. The validity of the tape-recorded totals rests solely with the internal functioning of the electronic central processing unit. Where output on magnetic tapes is to be used for data storage in that form, and not printed out, there is another control problem involved. It may be desirable in such instances to accumulate and print out for each reel a unit record count and some other quantitative amounts for comparison with the control record. The auditor should be concerned with the method of using this control record, to ascertain that the magnetic tape record is not altered between the time it is prepared and the time it is again used in the electronic processor.

RELIABILITY OF ELECTRONIC SYSTEMS

It will not be easy for the auditor to resolve the problem of the general reliability of a particular electronic system. Any such opinion would have to be based on a certain amount of technical knowledge, not previously attributed to accountants. Electronic system reliability in producing results, free from error, stems from various sources.

Probably the most important of these is the circuitry built into the equipment. This is usually designed so as to provide for checking the data as it moves from place to place within the equipment. It starts with parity check bits placed on the magnetic tape automatically by the recording mechanism. As the bits forming the binary-coded character speed through the system they pass checking stations watching for missing bits. Error signals flash after the machine has tried, automatically but unsuccessfully, to re-read any troublesome message. Duplicate circuitry is used in some equipment. Here everything is done twice in a parallel action with check stations all along the lines. In some printing devices, echo checks are used which send back a signal from the type bar asking if the correct one is being actuated. Without a knowledge of these technical construction features, how can an auditor form an opinion as to machine reliability? The answer is probably that he can not.

Another source of machine reliability stems from the self auditing steps built into the program. These are subject to examination and test by the internal auditor. They are in the form of recomputations of arithmetical functions and comparison of results; routines programmed into the machine for storing checked data temporarily in a section of the equipment so that all work can be backed up to that proven point and started from there if an error occurs; or the storing of many predetermined totals, within the system, for testing at programmed check points.

Machine reliability is dependent also on rigid schedules of planned maintenance. This maintenance is usually in the form of overload tests and tests under marginal conditions. All parts exhibiting weakness under these tests are replaced. Adherence to the specified maintenance schedule and observance of replacement standards are the concern of the auditor where machine reliability is under scrutiny.

SPHERE OF RESPONSIBILITY

All of these matters, then, are within the auditors' sphere of responsibility as it relates to the acquisition of knowledge of internal control:

1. Possibilities for programming controls into the equipment and possibilities for alteration of those controls.
2. Controls necessary, outside of the equipment, for data stored on magnetic tapes and proper methods for using physical and quantitative control of the tape record.
3. Reliability limits of the equipment and steps necessary to insure constantly reliable operation.

The internal auditor, concerned with one system and one set of electronic machines, is in the most favorable position to arrive at a sound evaluation of the controls within the machine system.

Internal control is but one phase of the responsibilities of the internal auditor. Quoting from your INSTITUTE's "Statement of the Responsibilities of the Internal Auditor"—"Internal Auditing is the independent appraisal activity within an organization for the review of the accounting, financial and other operations as a basis for protective and constructive service to management. . . . The over-all objective . . . is to assist management in achieving the most efficient administration of the operations of the organization . . . ."

TECHNIQUES

If this appraisal activity must be accomplished within an electronic data processing system, what modifications are necessary in our conventional audit techniques? These techniques are such procedures as:

1. Analysis and review.
2. Observation.
3. Inspection.
4. Confirmation.
5. Inquiry.
6. Computation.

Analysis and review is performed on historical records and source documents. Under some of the concepts previously mentioned, it may be that some of these records and documents may be eliminated from the system. At least some of the records will be converted to magnetic tape. Within the electronic system there will probably be a requirement to print out account totals only and not show transaction detail or source references. This would be most efficient for the equipment but most baffling for the auditor.

Where there is not a continuous print-out of each transaction, the system will possibly provide for each transaction to be stored on a cumulative transaction tape, arranged in some logical sequence. It is this transaction tape which is eventually processed against the master tape to accomplish the up-dating procedure. It is customary, also, to retain processed transaction tapes for a few generations of tape use. This would mean that the auditor would have the opportunity of requesting a print-out of detail from the last two or three processed transaction tapes. These print-outs could be used in the analysis of the master tape items for the periods involved.

Another approach to this problem of analysis and review would be the month-by-month comparison of account totals for evidence of irregularities. Where fluctuations are found which are not reasonable there would be a possibility to request maximum detail print-out from the master record tape or, where master records show no detail, a resort might be made to the source documents or to some input data in mechanized form. As to the latter, where transactions have been entered into the electronic system by means of punched cards or perforated paper tape, it would be possible to locate source documents by reference data information on the cards or tape. By sorting the punched cards for the appropriate period by account number, for instance, it would be possible for the auditors to obtain a set of cards representing all postings for that period.

REQUIREMENTS FOR NEW SYSTEM

All of this type of thinking leads to the question of just what we, as auditors, are going to require of this new electronic system. What will be the minimum which we will be willing to accept with respect to the preservation of conventional records for our review? I believe that we will adapt ourselves to this new approach by being satisfied if, at a given point in time, we can use available documents and tape records to verify selected current items. We would probably limit the extent of tests required of less current items which might offer serious resistance to reconstruction.

There is every indication that our auditing technique of observation will be more significant under electronic system design than it has been in the past. This technique refers to the practice of being present to observe the

manner in which prescribed procedures are being followed or violated. This implies that a knowledge of computer routines and job schedules has been acquired by the auditor so that he can observe intelligently. During this audit phase there would be obtained evidence of the function of the internal controls, previously mentioned. The manner in which tape files were controlled, the use of records within the data processing center to control accuracy, the obtaining of periodic print-outs for machine checking—all of these activities could be observed for conformity with authorized practices. This would be an evaluation technique.

INSPECTION PROCEDURE

Probably the auditing technique most familiar to all of us is inspection—inspection of cash, of inventories, of property, and particularly the inspection of documents and records. Behind this inspection procedure is the desire to ascertain the existence of the item and, in most cases, the authenticity of the item. While the physical assets should not disappear through the use of electronic data processors, we have a feeling that some documents may be missing after an electronic system is installed. Outside of the system there will still be the familiar invoices from vendors, disbursement checks, copies of bills, and the like. However, the paper created internally—the time cards, journal entries, registers, directives, etc.—may not remain where a highly integrated system is adopted. The disappearance of these may not bother us particularly, it is only that we have been in the habit of using them as evidence of accuracy, of management authorization, or of conformance to a plan. We are so accustomed to relying upon signature, initials, or other evidence of approval that we will not find it easy to abandon this visual proof of authenticity.

Inspection of documents retained in the system may become more difficult under the electronic approach. This would be due to a change in filing methods which might result from data handling routines in the system. Where it is no longer necessary to sort documents manually before translation into machine language, it has been suggested that it may no longer be necessary to sort the documents for filing. This pre-supposes that it would be possible to assign a document number to each piece of paper in its random order of entry into the data processing system. This document number would then become the reference number for all subsequent identification. Any change of this nature would be of concern to the auditor, since it relates directly to the ease of performing the audit function.

TIMING

Confirmation procedures might change considerably where the records are maintained within the electronic data processing system. Routines will

have to be developed for choosing the items for confirmation, especially where such items will require special handling, such as duplicate copies or print-outs on special forms. It seems, also, that there will be a need for definite pre-arrangements, so that the auditor will know exactly when he must be present to control his confirmation procedure. Except for this requirement for closer scheduling, however, there do not appear to be any particularly difficult problems relating to our confirmation technique.

INQUIRY

Our technique of inquiry will be of value in ascertaining the extent of the use of electronic equipment. It will aid in defining the scope of investigation necessary. By inquiry it will also be possible to gain an understanding of the methods used to achieve results on the data processor. The information gained through inquiry could be verified by brief tests, designed to stimulate authentic data but for which predetermined results have been prepared.

TEST ROUTINES

Use may also be made of specially constructed test routines for verification of the computational functions, which are said to be programmed for a particular application. Because of the computational ability of these electronic devices, we could curtail our work with respect to standards of accuracy to tests of this sort. This would assure us at least that the machine was using the proper formula for the job under review. By timing the visit of the auditor to the processing center, it might be possible for him to assume immediate control of certain reports as they emerge from the printers. This procedure, combined with the aforementioned machine tests, should eliminate the necessity for subsequent footing of these particular reports.

This mention of some of the modifications which might be made in auditing techniques is not intended to be anything more than suggestive of the possibilities which exist under electronic data processing. For the most part, these are the same techniques which have been used in the audit of conventional accounting systems. The significant changes will be in our methods of applying these techniques.

SIGNIFICANT CHANGES

Let us turn our attention, then, to some of the procedural matters deserving of our attention as auditors under electronic data processing.

For the most part, the present electronic systems are in the thinking, designing, or installing stages. The veteran systems are probably not much over one year in age. This should be an interesting period for the internal

auditor. He should be in close contact with the systems and procedures group. He might even be a member of the group. At the very minimum he should be included in the weekly, or periodic, coordination meetings held by the group responsible for designing the electronic data processing system. His purpose in attending should be two-fold. He can make valuable suggestions as to methods of including controls in the new system. He will become familiar with the new system as it is constructed and will be in a position to plan audit strategy based on this knowledge.

After the new system has been designed and checked on the computer, the auditor should observe the operation of the system while it is undergoing its parallel test. During this period he should revise his former audit program where it is affected by the electronic system. He should devise checking routines for his own use where this appears desirable. He should also set forth in his audit papers the control methods established in the data processing center and a program for checking these controls. The auditor would include in his survey a list of any special reports which he will require for audit purposes at certain intervals. A list of these reports should be given to the EDP supervisor so that they can be included in his work schedule. The audit program should suggest a schedule of attendance in the data processing center for observation of particular reports while they are in process of preparation. Any special forms for confirmations or transaction registers should be designed and adequate supplies ordered.

After the parallel operation has been accomplished and a change-over procedure begins, the auditor should be in attendance at the computer center sufficiently often to observe the functioning of the controls and their effectiveness in obtaining accurate and complete results. He should be available for consultation on the matter of any system or control revisions. Any tendency to over-control should also be evaluated since the controls should not be a road-block to the electronic system.

By the time that the new electronic data processing system is in operation and new applications are being planned, the auditor who follows procedures such as these would be completely in step with the whole program and adjusted to it. He would be in a position to carry out his responsibilities to management.

PROGRAM OF SELF-PREPARATION

An important unanswered question is "What should the auditor be doing now to enable him to participate in such procedures?" There is a matter of competence involved here. All of us who are concerned with the examination of accounts, records, or procedures where electronic equipment is now being

put into use, or where such systems are contemplated, should be following a definite program of self-preparation.

This program should include, as a minimum, a study of the fundamental theory of stored-program machines. This is most easily accomplished by attending a short course in electronic data processing machines as presented by the machine manufacturers. The courses in programming are the best way to find out how the equipment works. It would be possible to acquire a reasonably good knowledge of computors by reading one of the textbooks now in print on this subject. It does not seem practicable to attempt to learn about EDPM by attending technical meetings. The fundamentals are usually ignored at these gatherings in favor of the more specific problems relating to this new development. Courses in this subject are now being offered at university extension divisions and business schools. These vary considerably in content and should not be attended without first determining if the course includes material designed to meet your level of requirements. During these next few years every auditor will have to acquire some knowledge of electronic equipment, if he is to retain his stature in the field of auditing.

The role of the internal auditor as an essential instrument of business management has broadened significantly during the past few years. His responsibilities will be even greater under the concept of electronic data processing. We are just through the threshold of this new frontier of office automation but there is already an indication that the internal auditor will be the only person in a position to conduct a continuous and timely appraisal of the electronic systems. From now on, there will be a more insistent need for even greater coordination of the work of the internal auditor and the certified public accountant. Those of us in public practice look forward with pleasure to this closer relationship.

AUDITING FOR MANAGEMENT*

By G. D. BUNCE, A.C.I.S.

The present trend in auditing leads the auditor increasingly into management areas all too often unprepared to accept this important responsibility. The author provides an enlightening and highly condensed compendium of ideas for both the experienced auditor and the tyro in management-type audits.

THERE is a growing awareness in the British business world that the present role of internal auditing can be substantially enlarged to provide a really constructive service for management.

The general considerations in favour of the new approach to internal auditing have been stated in various articles in recent months, so the purpose here is to illustrate with practical examples how it is actually applied.

At this point, it may be advantageous to consider briefly the main tenets of what is generally described in North America as management auditing. It is a service to management which, through appraisal of all aspects of business performance and evaluation of the facts revealed, provides information on weaknesses existing in the organization, on important events, trends, their causes and effects, together with appropriate recommendations for improvements.

It may be practiced in almost every sphere of a company's operations, other than that of actual physical production requiring specialized technical knowledge.

THE PRINCIPLES IN PRACTICE

The following examples describe some of the points which might be considered by an auditor interested in learning 'what, why and how' about a job, a department, or a unit. They include features which may be applicable to various industries, but omit the limited amount of routine verification and protective measures which might normally be carried out.

It must be made clear that these examples are not suggested as check-lists, since check-list or program auditing is the complete antithesis of management auditing.

*Reprinted from The Accountant April 14, 1956 issue.

SALES

An audit of sales operations in a medium sized company might well be planned under the main classifications of orders, invoices, ledger procedures and credit control.

Orders

If orders are obtained by travelling salesmen, is there complete coverage of their territories periodically? Is there adequate review to ensure this and also to reflect any weakness in the effectiveness of the coverage?

If orders are received daily for definite execution within the next day or two, is there a dead-line time established and enforced? Are orders accumulated and passed forward shortly before the dead-line, thus creating unnecessary peak periods? What is the time lapse between receipt of an order in the office and the execution of it ready for dispatch? Is it reasonable?

Do copies of the original orders serve as instructions to all departments concerned in office, warehouse and factory, or are successive dockets raised at various stages?

Where deliveries are not made ex-stock, what measure of liaison exists between order and production departments, how current are work-in-progress reports, and are delivery dates met? Are orders completed and the goods ready for dispatch at appropriate times to connect with transport arrangements? What effect does failure here have on delivery schedules?

Is there an adequate procedure to record items not available, to notify the customer and to arrange for dispatch in due course?

Invoices

Can the procedure for invoicing be improved with regard to using a joint order/invoice document, or to facilitate subsequent extraction of information from the invoice?

What is the method, and how long does it take to transcribe the information from the order? Do all copies of the invoice serve a vital purpose?

Are invoices completed promptly and passed to the sales ledger and sales analysis sections without delay? Are customers' copies mailed on the date goods are dispatched? Is there a large number of customers who call for goods, and, if so, what is the effect on the routine and efficiency of the invoice department?

Is the general appearance of invoices satisfactory or is there evidence of numerous corrected copies, incorrect names and addresses, or other features likely to alienate a customer's goodwill?

Ledger Procedures

Are the ledgers posted by the most suitable and efficient method with regard to work-loads and other relevant circumstances? Does the design of the ledgers and ledger sheets contribute to the ease and speed of posting? Are postings up to date at all times? How quickly are statements prepared and mailed at month-end? Are accounts maintained in good adjustment generally, and are causes of maladjustment the company's responsibility?

How promptly are claims adjusted in the accounts? What is the general standard of work regarding appearance and accuracy?

Credit Control

Is the company's credit policy enforced? Is discretion used where warranted? How good is the liaison with the sales department? Are the credit clerks familiar with conditions peculiar to their territories? Are accounts aged accurately and what are the trends in individual accounts?

Are overdue reports available promptly at appropriate dates so that action can be taken? Do overdue accounts in any section indicate impact of labour unrest or economic or trade difficulties in that area? Have any protective measures been applied? What are the trends in overdue accounts generally and in comparison with past periods? What are the reasons for the deterioration?

PURCHASES

An audit of purchasing procedures in a large-scale organization, from the operational viewpoint, would be concerned with the following and similar functions:

What is the system for notifying requirements from the factory to the purchasing department? Are requisitions received in sufficient time to permit purchase orders to be issued under most advantageous conditions regarding price, terms, quality and delivery? What is the incidence of purchases made on 'penal' terms? Are requirements of raw materials and supplies scheduled in accordance with production budgets, and are they available as required?

What is the policy on special quantity prices? Are requirements consolidated to take advantage of these or, alternatively, are excess quantities purchased to obtain the special price? Is allowance made for wastage or other

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non-controllable losses? Do the stock records fulfil all required functions in the most efficient manner possible?

How familiar are the purchasing agents with the commodities for which they are responsible? Can they quickly locate information from different sources of supply? Is there evidence of poor description resulting in wrong orders—either by requisitioning or purchasing department? Are specifications accurate in accordance with production requirements?

Are minimum and maximum stock levels flexible to allow for seasonal changes in demand? Are they reviewed following process changes? Where maximum purchase quantities are established, are these related to the cost of procurement, *i.e.* clerical, interest and storage charges, in addition to other factors affecting stock levels? Would it be advantageous to purchase some components outside rather than make them on the premises, or vice versa, with regard to costs, delivery and quality?

Is centralized, decentralized or departmental purchasing, or a combination of these, the most suitable?

PRODUCTION

What are the physical as well as documentary factors involved when raw material is issued to and received by the production departments? Is there independent notification to the office from both stores and factory? Are raw material charges developed from this information or from another source?

How is volume of production recorded in the factory? What records are kept and by whom? Who designed them, what purposes do they serve? What are methods of measuring production intake and output and how reliable are they? Are yield calculations based on reliable returns of production, and what use is made of the calculations? When are they available?

Are there abnormal fluctuations in yields and how may they be controlled? If various processes are involved, how is product transferred physically from department to department and what accounting takes place? Are storage conditions for raw materials and finished goods adequate and efficient?

If incentive wage schemes are in operation is claimed output reconciled with actual?

OFFICE ORGANIZATION

In any company there are definite possibilities for appraising the quality of the office management, whose responsibilities may include maintenance of

a high standard and steady flow of work through all departments, the maximum employment of all available staff and equipment, and preparation of documents and reports in accordance with established time schedules.

The appraisal will be achieved largely through observation of the daily office routines, and supplemented by knowledge gained during the audit of the standard of organization and quality of work in various departments. The features to be considered may include:

The level of staff morale. Is the general attendance record good? Are there regular absentees and what action is taken? Are staff punctual in the morning and after lunch break? What is the incidence of overtime? (One of the best guides to good or poor management. Overtime is not efficient.) Are there definite rest periods morning and afternoon taken clear of the office area? Are telephone habits good? Is there prompt answering, polite attitude to customers, heavy incidence of personal calls? What is the standard of correspondence, both inter-company and with customers or suppliers?

Is there overall supervision of routine work? Are there unusual or unauthorized practices in common use?

What is the individual and total daily output of work in various departments, especially if work measurement is not used? Is there flexibility of staff and inter-availability at peak periods? What is the condition of records, standard of filing, suitability of equipment, and storage facilities for old records? What is the quality of postal, duplicating, and messenger services? Are stenographic arrangements adequate and on an economical basis; is full use made of dictating equipment?

Are reports and returns available on time?

Above all, does the office run smoothly or is the noise intolerable and the general appearance of disorder unbelievable?

SOME OTHER ASPECTS

It is not possible to discuss at length other fields where management auditing can be advantageously employed, but some principal features concerned with budgets, inventories, inspection, housekeeping and personnel are:

Budgets: methods of collecting and collating information and statistics; projected sales volume related to production capacity; coverage in terms of sales force and distributive facilities for projected sales volume; cash budget in reasonable relation to normal trend of receipts and general credit position; promptness with which actual figures are available at end of period and the effectiveness of action taken on discrepancies.

Inventories: types of storage capacity available and used; utilization of space; storage costs; interest charges; movement of finished goods according to program; inventory values related to turnover; controllable and non-controllable deficiencies.

Inspection: degree of co-ordination between receiving, production and inspection departments; point of inspection with regard to minimum expenses and costs in event of rejection; method of inspection and relative costs of random sampling and statistical control; reporting and study of defects, control on disposition of samples and rejects.

Housekeeping: this is a term which is not as familiar in British managements' vocabularies as it is in those of North American managements. The chief points include: office lighting, heating and ventilation, fire precautions and appliances, cleaning and maintenance services; similar considerations apply to the factory in addition to safety, with emphasis on movement of trucks, conveyors, etc., and conditions of floor surfaces; cleanliness of work areas and machines; cleanliness and adequacy of washroom and cloakroom facilities; control of rubbish dumps; external appearance and condition of factory. It is useful to bear in mind that bad conditions tend to encourage bad work.

Personnel: numerical comparisons of staff employed; maximum utilization of staff available; arrangements for temporary staff in peak periods; quality; turnover; selection procedures; training—initial and subsequent; career reviews; development of promising employees; vacations—how organized and whether all taken; employment files.

CONDITIONS NECESSARY FOR SUCCESSFUL APPLICATION

The reader may wonder how much standards may be achieved while the general interpretation of internal auditing by management and employees is that it is concerned only with accounting records and errors therein. Three essential conditions must be fulfilled.

First, there must be a demand from top management for the service. It must appreciate the benefits available, actively require and use the information with which it can be supplied, and make known its attitude at all levels of supervision. Internal auditing will not develop unless and until there is demand and support from top management.

Secondly, the organization of the department within the management structure must be of a high order. Through the quality of its work it must attain appropriate status, and members of the department must be recognized as representatives of the management group. They must be encouraged to use initiative, imagination and discretion.

Thirdly, there must be no restrictions on the scope of the review if the auditors are to explore the field of operations outside the accounting records.

APPRAISAL AND EVALUATION

The benefits to be obtained will differ according to the size and organization pattern of individual companies. Where the size of the unit being audited is such that all aspects of the work can be covered in one audit, the appraisal may be developed in three main phases. Firstly, the basic verification of assets and liabilities and study of procedures involved; secondly, an examination of operating statements working back to costs, production control, inventories, dispatch departments, distributive facilities and all other related aspects; thirdly, concurrent with these examinations a review of company policies, the measure of compliance, and interpretation and effect of them.

It is by evaluation of the facts and trends revealed during this three-phase examination that the auditor is able to appraise the control and efficiency of the local management. In larger companies where audits are planned on a departmental basis an overall appraisal is obviously not possible, but management may still be supplied with useful information on the organization of a department's activities and its relations with other sections of the business, in addition to specific recommendations regarding its work.

CONCLUSION

Enterprise, initiative and economy of effort are vitally important in administrative activities. Maximum development in this area depends upon a dynamic approach to the problem by top management, which in turn must be furnished with pertinent facts and opinions on the efficiency achieved and control exercised at subordinate levels. It is the internal audit department which should provide this constructive service for management.

Many aspects of this subject have been only lightly touched upon, but it is hoped that reflection on the examples used and thoughts expressed will show that beneficial results can be achieved by a good auditor interested in his work and well supported by top management.

THE ROUND TABLE

Edited by DONALD T. BARBER

One way of "Earning our Opportunity" is to share our actual experiences in internal auditing that have resulted in significant savings, increased efficiencies or the rendering of some special service to management. It is hoped that each auditor will draw on his own background of experience for at least one example.

Names of contributors will be published only with permission since the experiences are factual. Please send contributions to:

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REVIEWS OF AUDIT PERFORMANCE

Periodic review of the performance of any employee helps to stimulate him and to guide his progress. It is also a useful morale booster because it shows that the management is taking a personal interest in his progress. The following practice has been found valuable in reviewing the progress of internal auditors.

A standard review sheet is prepared, detailing the various qualities and skills demanded of an internal auditor. Two ratings are possible for each: above average and below average. In addition sections are provided for comments on the following points: (1) in what areas does the auditor show special proficiency? (2) in what areas is the auditor's performance in need of improvement; why; and what should be done about it?

At the end of each assignment, the auditor-in-charge prepares a review summary of each of his assistants. He discusses each summary with the head of the internal audit staff as a regular part of the wind-up of the assignment. The head of the staff pays particular attention to questioning the auditor-in-charge to make sure that the summary is completed realistically, constructively and sympathetically.

Unless the report is unsatisfactory, the chief auditor does not take immediate action on it. Instead, he retains it in a confidential file and has a

periodic interview with each member of his staff in which he uses the review summaries as a basis for appraising his performance and guiding him as to steps needed to improve his progress. These interviews are held once a quarter for all members of the internal audit staff during their first year, and once every six months thereafter. The interviews are staggered so that the chief internal auditor can devote more time and care to each one.

A valuable by-product of this system is that it compels the auditors-in-charge to adopt an analytical approach in appraising their assistants' performance, and discloses to the chief internal auditor any failings of the auditors-in-charge in this important leadership technique.

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THE MANAGER NOW LIKES AUDITORS

In anticipation of doubling the sales of a particular classification of goods, the personnel and warehouse space was increased. Gross profit had varied between 19% and 20% for all products and interim estimates of profits were made on this basis. An inventory to confirm the profit estimates was not taken until the close of the year. Upon extending the inventory values and arriving at a preliminary profit, it turned out to be a loss of about half the amount of estimated profit. Gross profit proved to be but 16%.

The auditor applied the breakdown technique of splitting a big problem into little ones. By classifying the inventory into broad divisions, and subdividing it again into smaller product groups, it was discovered that one new type product, carried as a convenience to the trade, gave but 2% gross profit. Its sales were considerable. This product was previously sold to a new class of customer in large quantities. Here the established precedent of quantity discount reduced gross profit to 15%. Another new line, taken on in the middle of the year, although going reasonably well, also brought less than 20% profit due to quantity discounts. It was investigated separately because the high proportionate inventory carried resulted in a low turnover. This new line was taken upon persuasion and promises of extended terms by the supplier. Goods ordered in carload lots were delivered in partial shipments. As the result of the auditor's accounting, almost to the penny, for the difference between the loss and the estimated profit, the manager had all the elements before him at one time, specific and related.

The manager who was aware, but not in money values, of the evidence produced by the auditor, saw that the department could not continue on the current basis. With concrete information, supplied by the auditor, he obtained: (1) an adjustment of half the freight saving denied by partial shipments; (2) a refund of 50% of the slow moving stack in his new line which

had been unloaded on him as a beginner; (3) under pressure for a consignment basis rather than purchase, the new supplier offered more liberal extended terms of payment on the large inventory necessary to carry his line. He also gave the department the full line of products including some new items at better profit margin. The freight adjustment and refund on slow moving stock wiped out the loss and a realistic budget and forecast of the new year shows the department will have an increased volume, a gross profit of some 18% and a lower investment in inventory. The manager now likes auditors.

Sidney W. Peloubet
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25 Broadway
New York 4, N. Y.

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THE PROVERBIAL EXPENSE ACCOUNT

The age old problem of expense accounts is ever before internal auditors and most of us have reported instances which to us seemed unreasonable. A review of a few of the more pertinent items may not be amiss at this time.

Has your company's expense form been revised lately? Does it bring out the details management requires when reviewing expenses prior to approval? Are expense accounts approved by the proper persons?

Has your company established a transportation policy? In many instances, it is still possible to travel with less expense by rail but it usually takes longer; some employees prefer to use their automobiles; other employees rent automobiles when on field trips and for normal business. All these matters should be carefully reviewed, the cost weighed and a policy set out.

Automobile mileage allowances for various areas should be published if actual expenses are not allowed; miles claimed should be checked and should be allowed only for company business.

Taxis are usually used to get to and from stations and airports; their indiscriminate use otherwise should be viewed with a critical eye.

Entertaining, a difficult item to control, should normally be approved in principle in advance. It is normally restricted to more senior personnel.

Receipted hotel bills should support room charges. The class of hotel and price per day should be noted.

Meals vary from city to city but these should be shown separately on the expense account each day and should be fair. If they include meals of guests, this should be stated.

When on the road, numerous small items of expense occur from day to day. The traveler will be out of pocket if a charge for these is not permitted. The charges should be reasonable.

A proper follow-up of the internal auditor's report on expense accounts may not increase his popularity but, with the overall company's interest in mind, it can quite easily decrease expenses and add to profits. It is a proverbial problem and popularity is so fleeting!

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WHY NUMBER CASH RECEIPTS?

Public accountants are prone to emphasize the importance of control on cash collections through serially numbered receipts. We have recently abandoned them. Why? Any intelligent defaulter can easily circumvent the control by using an unauthorized but otherwise acceptable form of receipt, whether it be a printed form or merely a rubber stamp to put on an invoice.

If we admit this, then any serially numbered control is directed only against the unintelligent defaulter. How much are we prepared to spend to discourage or catch him? Not too much. It is more than likely that other features in the system of internal check or the steps taken in test audits will reveal his peculations. Moreover it will probably reveal them just as soon, because at the present time nothing really happens if a serial number is unaccounted for, when after investigation no one knows how or why. Only a thorough and costly audit of accounts receivable could reveal if a missing number represents a misappropriated collection.

What is saved when the cash receipts are not numbered? Checking and accounting for numbers when: (1) receiving the supplies into general stock, (2) issuing from there, (3) cashier receives them, (4) cashier issues them, (5) accounting department verifies sequence, (6) auditor test-verifies unused receipts on hand.

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WEIGHING SCRAP

During routine audit of scrap operation, an incongruous feature presented itself while a tractor-trailer was being weighed.

It was noted that although the trailer was the only part centered on the scale, nevertheless it was not detached from the fifth wheel which of course supported some of the scrap weight. Procedure was corrected with the result that the company realized the full amount of scrap sales to which it was entitled.

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CHARGES FOR CAFETERIA MEALS

Our audit of cafeteria payroll revealed that for tax purposes an unrealistic meal allowance was used as an addition to gross income for meals furnished cafeteria employees. The figures also were used for cafeteria accounting purposes and resulted in distorted statements.

Complete investigation resulted in the fact that value of meals no longer had to be added at all. A more realistic value was developed for accounting purposes.

These two items naturally made the cafeteria manager happy, and goodwill feeling toward the audit staff resulted.

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DUPLICATE REPORTS

The company's annual report was used as part of an employment brochure which included several other pamphlets relating to company history and achievements.

Upon investigation of the brochure's contents, it was noted that the only thing the annual report contained which was not revealed in one of the other booklets was the most recent balance sheet.

Although some ten thousand extra annual reports for the employment brochure were on hand, the Employment Manager was persuaded that their inclusion was of doubtful value. He is reconsidering the whole question. It is unlikely that he will again order this report for distribution to employees.

STUDENT'S DEPARTMENT

Articles in these 15 pages are compiled because of their special help and interest to students.

Edited by STANLEY J. BLAZNEK

SELLING AUDITING

SELLING is one of the most important elements of a business in our present-day economy. It is not merely to exhaust or reduce the inventory by means of sales but to transfer for a consideration which will provide a return at a margin resulting in realization of adequate profit.

An established item already accepted by the buying public soon becomes competitive, resulting in extra sales effort to capture a good or better than fair share of the market. The extra sales effort may be in the form of advertising, training of salesmen or additions to sales staff. To sell a newly patented item requires introduction to the buying public in the form of advertising and a sales organization.

Likewise, internal auditing, which we may here consider as a commodity, must be sold. Since it obviously is not a commodity generally sold to the public at a determined price, other means than advertising or sales organization must be used to convince our "market." The "market" being employer-management-personnel, educational institutions which train potential auditors and the general public.

The salesmen are primarily internal auditors and secondarily THE INSTITUTE OF INTERNAL AUDITORS, with an assist by the other related professional organizations.

For management to buy internal auditing, it must be convinced, to its own satisfaction, that it is being well served. That internal auditing is a good salable commodity is demonstrated by the fact that many companies do have established staffs; however, there still is a great selling job to be done, as is evidenced by the many companies where either there is no internal auditing or internal auditing is recognized only on a small scale.

WHAT LIFE INSURANCE MANAGEMENT EXPECTS OF THE INTERNAL AUDITOR

By R. A. TAYLOR

Comptroller, Sun Life Assurance Co. of Canada

The field of life insurance, like all others, has unique problems that are reflected in the responsibilities and the program of the internal auditor. Transactions are numerous, amounts are large and exposure to fraud is always present.

While the protective phase of the internal auditing program must be stressed, the auditor is expected to give constructive appraisal and report—to assist management in doing a better job of managing.

THE COMPANY

LIFE insurance is a business which differs from other businesses in that it sells not for delivery of a product today, tomorrow or next week but for delivery of dollars years and decades hence. When we buy from a manufacturing or trading concern we need think only of the concern's ability to meet its obligations in the immediate future; not so when buying from a life insurance company. When we contract for a policy of life insurance or for an annuity for our old age, we want to be sure that the company from which we are buying it is going to be in business and able to fulfill its contract many years hence. Therefore, as members of the insuring public, as well as in our capacity as internal auditors, we have an interest in knowing something of the extent and nature of the supervision and auditing to which a life insurance company is subject, because auditing has as one of its objects the preservation of the assets of a business—something that is very necessary if we're to collect on our insurance. In actual practice most Canadian life insurance companies today are audited by three different authorities, namely, the Canadian Department of Insurance, independent chartered accountants and the companies' own internal auditors.

Canadian life insurance companies operate under a statute of the Parliament of Canada entitled the Canadian and British Insurance Companies Act, the administration of which is entrusted to an official of the Department of Finance known as the Superintendent of Insurance. The companies are required to file with this official full and complete statements of their affairs every year and these statements are scrutinized and checked very carefully at Ottawa. Representatives of the Superintendent of Insurance also visit

the companies and make a thorough examination and audit of their books. While there is no statutory requirement for it, most, if not all, of the Canadian companies have their books audited annually by chartered accountants as well; and their reports to policyholders and shareholders are certified by these auditors. Most of the larger companies today also have their own internal audit departments. Being thus thrice audited, we should be pretty safe.

THE INTERNAL AUDITOR

I would like to discuss some of the things that the management of a life insurance company expects of its internal auditor. In some companies he may report directly to the Board of Directors, in others to the President or General Manager and in others, as in my own company, to the Comptroller, or to some other senior official. But, regardless of the officer to whom he reports, he should have a high degree of independence and have access to all books and records of the company. Only when he has a free and unfettered right to examine every source of information can he operate to the fullest extent as the eyes and ears of management. If, for example, he is denied access to the minute books of the Board or of the Executive Committee, he won't have that first hand knowledge of company policies which he should have to gauge how effectively those policies are being carried out.

CO-OPERATION WITH EXTERNAL AUDITOR

The internal audit program should be developed in such a fashion that there will be the minimum of overlap and duplication of the work of the external auditor. While the external auditor is concerned principally with the correctness of the financial statements, he must, in order to be able to express an opinion as to their correctness, examine into many aspects of the system of internal control and test the supporting data. The internal auditor is more concerned with the day-to-day operations of the business, but he likewise has a vital interest in the adequacy of the internal controls. Unless there is consultation and close co-operation between the internal and external auditors, they are likely to be repeating each other's work with consequent unnecessary expense to the company. The management therefore expects that the internal auditor will work in close cooperation with the external auditor in developing his program and that he will make avail-

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ROY A. TAYLOR'S *business career has been with the Sun Life Assurance Company which he joined in 1917. After overseas service in the Canadian Army, he has held successively the positions of assistant chief accountant, assistant controller and controller which position he holds today.*

Mr. Taylor is Past President of the Life Office Management Association, Past President of the Montreal Chapter of THE INSTITUTE OF INTERNAL AUDITORS *and Past President of the Montreal Control of the Controllers Institute of America.*

able to the external auditor copies of his reports and of any of his working papers in which the external auditor may be interested.

INVESTMENTS

Perhaps the most important single phase of a life insurance company internal auditor's responsibilities lies in the area of the company's investments. The fact that life insurance funds represent the accumulated savings of millions of individuals makes it obvious that in the investment of them, safety and security must be the first consideration, with yield and profit playing secondary roles. This was recognized by the Canadian government more than seventy years ago when provisions were written into the insurance law to regulate the investment powers of the companies. The law specifically lays down the types of securities in which policyholders' funds may be invested and the requirements which each investment must meet. And these provisions have been revised over the years in the light of experience to meet changing conditions.

Although the investments of the companies are the subject of close supervision by the government officials, the company management expects that the internal auditor will give this phase of the operations very special attention. The principal classes of investments of a life company are: bonds—government, provincial, municipal and corporate; stocks—preferred and common; policy loans; and first mortgages on real estate. A small proportion of the investable funds may be placed in the outright purchase of income-producing real estate. This latter is a development of fairly recent origin and is pretty well confined to commercial properties which are leased on a long-term basis to reliable business concerns.

Acting under authority from the Board of Directors (or a Committee thereof), the investment officials of the company are responsible for the actual investment transactions. Management is interested in having the internal auditor satisfy himself that all investments made conform to the law, that none has been acquired without proper authorization and approval, that the securities, deeds or other requisite documents are received in all cases when payment has been made, that appropriate and adequate accounting systems and controls are in effect to safeguard the company from loss and that the systems and procedures set down are actually being adhered to in practice. This latter is especially important, for example, with respect to the procedure for the operation of the security vault. Being the repository of a very substantial portion of the company's assets, many of them in negotiable form, some slight departure from, or lapse in the carrying out of, the control measures surrounding it could open the way to serious loss.

Because of the importance attaching to investment operations, we in our company do more intensive audit work in the Investment Department than in any other department of the company. Where millions and hundreds of millions of dollars are involved, we feel that it is worth spending a few thousands on a thorough audit to ensure that neither error nor dishonesty can occur and long remain concealed.

INCOME

In discussing the internal auditor's responsibilities in connection with our investment activities, I perhaps have been guilty of putting the cart before the horse, for it is our revenues that provide the funds for investment, and logically I might have been expected to deal first with the internal auditor's activities in the realm of income before discussing his part in connection with the investment of that income.

PREMIUMS

Be that as it may, the internal auditor of a life insurance company has no easy task in satisfying himself that all income is promptly received. One of the most difficult internal control problems of a life company is that of ensuring that all amounts collected by its agents are immediately turned over to the company. Again drawing a comparison with an ordinary mercantile business, when a dealer sells goods he knows what money is due him. Relatively few merchandise sales are made on the basis of payment to the salesman in advance of delivery of the merchandise. In the life insurance business, however, that is common practice. An agent obtains an application for a policy and frequently obtains payment of the first premium at the same time. The company doesn't know that the agent has written the business, so there is nothing to hinder the agent from holding up the application and temporarily pocketing the cash without the company being any the wiser. In due course the agent can get an application and payment from someone else, send the first application in and use the second payment to meet the premium on the first application, and so on through a series of cases. There are many variations of this method that may be used by a dishonest agent to withhold premium collections without the company being aware that anything is wrong. Where sales and collections are being made without the company having advance knowledge of them, you can visualize how difficult it is to prevent such practices. Fortunately though, they occur but rarely, due in large measure to the care used in the selection of the agents. Before he is hired, an agent's background is carefully investigated and he must have a past record of honesty and integrity. His inherent honesty is the best protection the company can have against his misappropriating collections or engaging in other undesirable practices.

After policies are issued, the company then knows the premiums that are falling due on them and is in a position to control its revenue therefrom. All policies are numbered consecutively as issued, and at that time a billing record is set up to control the collection of premiums. The internal auditor is expected to see that appropriate collection and accounting systems are in effect for dealing with premiums and to make such test checks as will enable him to be satisfied that premiums falling due are being billed, that there is no withholding or other misappropriation of collections, that reporting is prompt and accurate and that the controls for handling the large sums involved are being strictly adhered to.

Because of the huge volume of transactions, it is neither practical nor economical to adopt the checks and balances that are usual in smaller businesses. For that reason the internal auditor must concentrate upon the broader aspects of control. One possibility that he mustn't overlook is that of collusion between the personnel of a branch office and of the head office—particularly of those in the same city. Such collusion would make it possible for premiums on individual policies to be recorded as paid without any money actually having been received.

As a part of his check, the internal auditor is likely to send audit notices to a selection of those policyholders whose premiums are shown on the records as unpaid, sometimes sending these notices to policyholders before their premiums are due. One of the favorite methods of those who misappropriate premium collections is to extract items paid before they fall due and to replace them later out of other receipts. So, if some time you receive an audit notice from our internal auditor to say that a premium not yet due isn't paid, don't think we regard you as a poor credit risk or that we're "off our rocker." It's just a measure for our protection and yours. I wish there were some more effective means of auditing our collections than through these audit notices. We use the negative type of confirmation so as to give our policyholders the minimum of trouble. Although we ask most particularly that, if there is a discrepancy, the reply be addressed personally to the internal auditor, I don't think I'm exaggerating when I say that not one in ten of the few persons who have occasion to reply, communicates with the internal auditor. The others go straight to the agent or employee to whom they've paid the money—and where does that leave the internal auditor and the company?

Investment Income

Premiums are the principal source of a life insurance company's income, but income from investments is also an important item. This investment income consists of interest on bonds, mortgages and policy loans, dividends on stocks and real estate rentals. Management expects the internal auditor

to satisfy himself that these revenues are being collected promptly and accounted for and, where default occurs, that appropriate steps are taken to safeguard the company's interests. In the case of interest and dividends from securities, our internal auditor maintains an independent control on the amount receivable each month. He agrees the total collections for the month, plus an itemized list of the unpaid items, with the control. The unpaid items are naturally investigated and followed up. Interest on mortgages and policy loans is verified on a test basis by audit confirmation letters generally of the negative type. Real estate rentals are verified by examination of the leases, by communication with tenants who are in arrears and by inspections from time to time of the properties so as to establish the existence of reported vacancies.

EXPENDITURE

From income let us turn now to outgo, which in a life insurance company is of two principal categories: payments under its policy contracts and expenses of operation. First, let us discuss what is expected of the internal auditor with respect to the policy payments. These consist of dividends, death claims, matured endowment settlements, annuities and surrender values.

Dividends

Dividends under participating policies represent the return to the policyholder of the excess of the premium he has paid over the amount required to provide his protection. These are declared annually by the directors on the recommendation of the company's actuary. The Actuarial Department calculates the amount applicable to each policy; this amount is recorded on the dividend history card of the policy and the policyholder is notified of the amount allotted him. He generally has the option of taking the dividend in cash, applying it towards payment of his premium, leaving it at interest or using it to purchase additional paid-up insurance.

Policy Settlements

When the company receives notice of the death of a policyholder, that fact is immediately recorded both in the insurance account, the policy being cancelled therein, and in the ledger, a liability being set up in the latter. As soon as satisfactory proofs of death are available and questions of title and succession duty clearance disposed of, payment will be made. With matured endowments, instead of notification being received from outside, the company lists of the maturing policies are prepared periodically from the insurance account records in which the policy is cancelled at the appropriate date. One copy of the list goes to the department that will pay the settlement, another to the accounting department to book the liability. Surrender value payments are made at the request of policyholders and the handling of

them is very similar to the procedure followed in the case of death claims, insofar as the recording and control aspects are concerned.

With respect to all these types of payments the internal auditor is expected to satisfy himself that effective accounting and control procedures have been established and are functioning as intended. This he will do by periodically examining the systems and test checking a proportion of the individual transactions.

Annuity Payments

Unlike the payments we have just been discussing, annuity payments give rise to no changes in the insurance account records. They are simply payments made periodically in conformity with contract terms and do not invoice cancellation of nor change in the contract. Consequently the insurance account doesn't provide the same degree of control on payments of this kind. Yet, the internal auditor must be satisfied that all such payments are genuinely payable. The large number of them makes it impractical for him to do more than test a limited number of the individual items, so other means must be found for controlling the account. That can be achieved by having dual records prepared independently, one set in the accounting department and the other in the disbursing department. Daily totals can be compiled of the payments being made and these can be compared by the auditor with the accounting department's daily totals of the payments that should be made.

An interesting side-light on the audit problems which annuities present is found in the experience of one of our Canadian companies in India. This I'll call the case of the pickled thumb. The company heard rumors that an annuitant to whom it was making regular monthly payments had died some years before. Now in India, it is customary for a native to make an imprint of his thumb beside his endorsement for identification purposes. The company examined its cancelled checks for several months back and found that each of them bore the annuitant's authentic thumb print. It looked therefore as if he must still be alive. But to play safe the company sent an investigator around who established that the annuitant had died two years before. When the investigator called on the family to inquire, they said, yes they'd been getting the check and when he asked about the identifying thumb prints they produced a bottle containing father's thumb. They explained that they'd seen their father make an impression of his thumb print on the check so when he died they cut off his thumb, preserved it in alcohol and brought it forth to do its duty each time a check came along.

Expenses

The other disbursements of life insurance companies differ little from those of any other business. They consist of commissions and salaries to sales-

men and employees, rent, taxes, payments for equipment and supplies and the thousand and one other expense items incidental to carrying on business. The internal auditor's activities in connection with them are again in the nature of an examination of the system of internal check and control and a test sampling of the transactions.

LIABILITIES

From expenditures, let us turn to liabilities. When looking at the balance sheet of a life insurance company you will have noticed that by far the largest liability item is the one called Policy Reserves or some corresponding title.

These reserves represent the amount which, together with premiums still to be paid and with future interest earnings, will equal the amounts we have contracted to pay under our policies when they mature. The computation of the reserves is an actuarial calculation involving the use of mortality tables. Because of its special nature, the actuary's certificate as to its adequacy is accepted both by the internal and external auditors. It is however subject to independent check from time to time by the examiners of the Insurance Department at Ottawa, who are required by law to make a complete valuation at least once in every five years.

The internal auditor is expected to satisfy himself with regard to all other liabilities. He should see that none is omitted and that provision, which in his judgment is adequate, has been made for all those that are in the nature of estimates.

CAPITAL STOCK

He is expected also to examine and verify the records pertaining to transactions in the company's capital stock and its dividend payments to shareholders.

BRANCH OFFICES

Life insurance companies operate through branches or agencies in many localities. In my own company we have 30 branches in Canada, 40 odd in the United States, 25 in the British Isles and another 25 distributed throughout many corners of the world. These branches require to be audited just as much as does the head office. The internal auditor is expected to see that each of these branches is audited at appropriate intervals, that the cash and accounts are being properly handled and maintained and, where the size of the office will permit, that the division of the work is such as to provide a reasonable measure of internal check.

CONCLUSION

The methods and procedures followed by the internal auditor of a life insurance company may, and will, differ greatly from those of his counterpart in an automobile manufacturing concern, an oil producing company, or a telephone company, but the basic principles remain the same. Regardless of the type of business he is serving, the internal auditor should develop his program with certain fundamentals in mind. I mention three of these:

1. He and his staff should be independent, separate and apart from any other unit in the organization which authorizes, controls or records transactions or which handles or has custody of company assets.
2. The company's organization and records should be so constituted that an automatic internal check and control is established, and
3. The program is designed for the types of transactions to be verified.

To sum up, what life insurance management expects is what business management generally expects, namely that (to paraphrase THE INSTITUTE) the internal auditor will be an independent appraiser of the accounting, financial and other operations of the business who will provide information and advice that will assist management to do a better job of managing.

INTERNAL AUDITING FOR A STORE

By JAMES D. SHEA

Assistant Controller, Allied Stores Corp.

EXPOSURE to loss, waste, theft and fraud in a retail store is prevalent at all times, which requires well devised controls to minimize such losses.

Controls must be practiced and not too elaborate as to render the utilization excessively costly in relation to benefits.

The company with which I am associated has long recognized the need for an internal auditing department. The parent company maintains a sizeable staff which periodically visits all stores in the country, conducting general balance sheet audits. The audit staff of the parent company reports directly to the company treasurer. In addition, the subsidiary companies maintain their individual internal auditing departments to more intensely review the accounting and operating functions within their own bailiwicks. These departments usually report to the subsidiary company controller.

Our company has, over the years, developed an internal audit manual which sets forth the duties, responsibilities and authority of the internal auditor; prescribes his conduct; specifies the reporting requirements; emphasizes the importance of being factual; and presents a detailed outline of the approach to the audit. The "foreword" to the manual, which so well exemplifies the nature and objectives of internal auditing previously mentioned, reads as follows:

"This manual has been prepared to provide the internal auditor with a comprehensive treatment of the policies and procedures for conducting an inspection of the accounting and operating functions of our stores.

While primarily for the guidance and enlightenment of the new staff member, all will be expected to completely familiarize themselves with the context for there must be no inconsistency in either approach to the work or in the scope of subject coverage.

An audit based on a sound knowledge of company requirements is requisite, not so much to the company directly as to you, for it is the strength of your findings that will direct you or other responsible members of our organization to take proper corrective action. It is action based on facts and in good judgment which produce results. There is not justification for a staff that does not produce results commensurate with the investment that has been made in it."

Because the values and the exposure to loss, waste, fraud, and theft in the retail field are so great, internal control is one of the most vital elements of our business. The development of retail controls has had to be as practical as possible because ineffective controls would be sure to bring prompt, tangible, monetary loss, while over-elaborate controls are luxuries which a retail business cannot afford. Therefore, the internal controls of department store operations have been planned and established with careful consideration of cost and complication in relation to the tangible benefits. With a multitude of transactions being handled by personnel with no accounting training or experience, the routines must be as simple as possible and be handled with a minimum of effort, with the controls designed to highlight situations needing attention and permitting minimum attention to those situations where everything is in order.

Effective handling of large volumes of merchandise by large numbers of operating personnel requires carefully developed, simple procedures *that must be rigidly followed*. No variation from established procedures can be tolerated. Unfortunately, procedures must be developed, studied and enforced with the possibility of fraud by employees and theft by persons who may have access to the merchandise being always in mind. Under these conditions, uniformity is essential, even though it may be burdensome. For example, perhaps you, as a customer, have at one time or another been exasperated by having to wait while a salesperson attempted to locate a department manager to approve your return of merchandise. It has been department store experience that any allowed deviation from standard practice will lead to further deviation and inevitable loss of control. For that reason, the profitable existence of a department store demands that store personnel be trained to follow definite procedures, rigidly enforced.

In the midst of all the operating and accounting functions involved with the foregoing complexities are our internal auditors, continually checking and suggesting—to "protect" the company's assets and to assist in ultimately "constructing" better profit margins.

By way of illustration, the following typical areas provide our internal auditing department with plenty of opportunity for rendering outstanding service to management:

a. *The procurement and receipt of merchandise* presents few special features or problems with which you are not already entirely familiar. However, the nature of the merchandise handled, having a more personal attraction to more people, increases the urgency for an adequate internal control. The initial control of store management is through budgets which show estimated sales, profit, and permissible

total dollar volume of inventory. The secondary control is attained through the separation of responsibility for ordering, receiving and paying for merchandise.

b. In connection with the procurement of merchandise, incoming transportation has been a very fruitful field for constructive service to management by our internal auditors. Incorrect or omitted original routing of shipments on purchase orders can be very costly. The judicious placement of orders, particularly on furniture and appliances, to avail ourselves of carload rates can make the difference between 3% to 8% transportation cost on a shipment. The audit of freight bills for proper freight rates is also a source of substantial savings. As a matter of fact, our company added an $8,000 a year traffic man to its payroll several years ago as a result of the findings of our internal auditors in a study of transportation costs. He has since "paid his way" many times over.

c. The greatest exposure to loss or theft of merchandise comes from the time merchandise is placed on display until it is purchased and paid for by the customer. Sales personnel as well as store detectives keep watch against shoplifting. After that our main problem is to get the sale recorded. Our procedures are developed to provide maximum assurance that sales are promptly rung on the cash register or written-up on saleschecks. Frequently, the customer is an involuntary auditor of the salesperson by insisting upon a correct receipt. "Shoppers" are also used to check the prompt and correct recording of sales. The "shoppers" may be either store employees or representatives of an outside agency who are not known to the salesclerks. These "shoppers" are apparently regular customers who make normal purchases in a normal manner but who observe whether the salesclerk is complying with company procedures in handling sales and servicing customers. Infractions of established procedures are severely dealt with to avoid recurrences. Once the accountability for the sales has been established, conventional methods of machine accounting and reporting may then be applied. Sales audit is itself an area where the internal auditor can be most effective by reducing costs through improved methods.

JAMES D. SHEA *graduated from St. Louis University with B.S. degree, Business Administration and accounting major. He is at present controller and store manager of the Bon Marche, Eugene, Oregon, and has been associated with Allied Stores Corporation since 1948. Prior to that he was associated with A. G. Edwards & Sons and Montgomery Ward.*

Mr. Shea is past vice-president of Puget Sound chapter of INSTITUTE OF INTERNAL AUDITORS *and a member of the Lions Club.*

d. Inventory control is effected under the retail inventory method which involves the maintenance of inventory in total for each department on the basis of the total sales value of merchandise, rather than by any detailed costing of sales by item or transaction. The number of elements in the development and maintenance of "book" inventory is considerable and consequently presents another fertile field for protective as well as constructive service to management by the internal auditing department.

e. *Returned Sales* provide excellent opportunities for the internal auditor to "pay his way"—from both protective and constructive points of view. Cash refunds are normally test checked regularly by having the internal auditing department address form letters to a representative group of customers. Usually, an attempt is made to include a quantity of refunds for every salesclerk over a period of several tests. The form letter normally takes the "service" approach, in which the customer is requested to advise if the merchandise return was handled to her entire satisfaction. Of course, the amount and description of the returned merchandise is listed in the form letter. More often then we like to find, the replies from customers can be very disconcerting. Occasionally, the customer lets us know that she did not return any goods. When this happens, the auditors usually produce a dishonest employee, who sometimes acknowledges a sizeable misappropriation. On the other hand, the customers' replies frequently enable the auditors to contribute their bit to improved customer relations, when, during the course of the tests, complaints are received and subsequently adjusted to the customers' satisfaction.

Time does not permit me to set forth further the many additional areas of our business where the internal auditor can and does render very valuable service to our company management, both from a protective as well as from a constructive standpoint. It is quite understandable that the volume of detail encountered in the accounting and operating functions of a department store would provide a practically constant opportunity for methods improvement and increased productivity. Our internal auditing department has the happy faculty for frequently utilizing this opportunity to serve our company management. For this reason, I am sure that our internal auditing department has a permanent niche in our business.

I have attempted to set forth in the foregoing the premises from which we can conclude that the internal auditor is an integral part of today's business.

The nature of internal auditing and the objectives thereof, as set forth by the "supreme court" of the internal auditing profession, THE INSTITUTE, states the point of view of the profession.

The number of important companies which have audit department representatives enrolled in THE INSTITUTE, the testimony of executive personnel concerning the important service rendered to their companies by internal audit staffs, and the substantial budgets established by many large companies in connection with their internal audit departments seems to substantiate company management's opinion concerning the value of internal auditing.

The growing interest of the layman, as exemplified by the introduction of collegiate courses in internal auditing, testifies to the budding recognition of the profession by the public.

The internal auditor not only has an important niche in today's business—but is on the road to bigger and better things.

ARTICLES OF INTEREST

TO INTERNAL AUDITORS

Subject: PROFESSIONAL ETHICS OF CERTIFIED PUBLIC ACCOUNTANTS

By: John L. Carey, Executive Director, American Institute of Accountants

As a distinct and recognized profession, certified public accountants have responsibility for establishing and enforcing standards of ethical conduct covering the members of their profession. The need for study and publication of these standards is highlighted by the doubling of the number of certified public accountants during the past ten years. With this increase in numbers has come a considerable degree of expansion in the services which may be offered to clients.

This book describes the ethical standards applied to accountants engaged in public practice. Part One covers fundamental principles—the public interest, professional competence and attitude, independence and integrity. Part Two is devoted to ethical questions in the field of practice, and Part Three with ethical responsibilities to other people and forms of organization.

While not directly applicable to internal auditors, much of the philosophy and standards which are described will be helpful to the internal auditor in shaping his approach to his own responsibilities.

American Institute of Accountants
270 Madison Avenue
New York, N. Y.
Price (cloth) $4.00. (paper) $3.00

Subject: HOW TO SELL SYSTEMS TO MANAGEMENT

By: Robert Briggs, Systems Engineer, Friden Calculating Machine Co.

Published in Systems and Procedures, November 1956

A most important part of systems work is making top management aware of the benefits derived from a systems group. While there is no set formula for telling management of the different systems necessary, two proven ingredients are the most used for "selling" in the companies studied for this article. They are "'results" and "reports." "Results" are the things which top management can see for themselves, and reports help to bring to their attention things which may not be self-evident.

"Any reputable firm must have a good product to sell if it hopes to retain its steady customers." The good products under discussion here are technical competence, ability to maintain proper relationships with the operating departments, winning of confidence, ability to dig into all aspects of systems problems and come up with improvements after careful study, etc.

Subject: ACCOUNTING IN FEDERAL GOVERNMENT

By: Eric L. Kohler, Consulting Accountant

Howard W. Wright, Associate Professor, University of Maryland

Accounting has come of age in the Federal Government since World War II, thanks to the efforts of accountants inside and outside of the government, the efforts and desires of the Congress and the work of The Hoover Commission.

This book covers the philosophy and the techniques of government accounting in the present stage of development, and compares government practices with those of private corporations.

Beginning with a description of the "Fund" methods of accounting, the text then goes on to describe the techniques of fund accounting. Separate chapters cover such topics as the General Accounting Office, the Budget, Treasury Accounting, Management and Transaction Controls and Internal Auditing.

The growth and recognition of internal auditing in the Federal Government have paralleled its growth in private business. "He (the internal auditor) is the one automatically commissioned to smooth out rough spots, dispose of jurisdictional troubles in such a manner as to please all parties, and absorb the shocks of emergencies. If he can assume these responsibilities cheerfully, competently, and without involving himself in organizational factions he will be respected and a credit to himself and his agency." Quite an assignment!

Prentice-Hall, Inc.
Englewood Cliffs, N. J.
Price $5.50

Subject: RETAIL MERCHANDISE ACCOUNTING (Second Edition)

By: Herman F. Bell, Lybrand, Ross Brothers and Montgomery

This book (rewritten from the original published in 1936) will help the accountant know the latest systems and procedures in retail merchandise accounting. Satisfactory and better procedures may be developed by close study and understanding of the distinctive features of the accountant's business. The methods explained and illustrated are applicable to varying retail conditions and to stores of any size.

The retail method of merchandise control is described fully. Budgets and normal and special accounting problems of stores are covered, with separate chapters on such topics as discounts in inventories, unit control, taking of inventories, and taxes.

The LIFO method of inventory determination is given extensive treatment in the final seven chapters, with particular attention to the accounting and tax aspects. In the final chapter, "Pending Questions and Unsettled Procedures under LIFO and INVO," the author describes some of the important issues now pending, and mentions some of the situations where, as yet, there is no specific Treasury guidance.

The Ronald Press Co.
15 East 26th Street
New York 10, N. Y.
Price $12.00

Subject: BUSINESS ELECTRONICS REFERENCE GUIDE, Volume No. 3

By: Controllership Foundation, Inc.

This edition of the Controllership Foundation series on Electronics in Business brings to the reader the latest information on electronic data-processing equipment and applications. The 206 pages of the book contain an expanded section on computer installations and equipment offered by various companies and lists actual applications of each computer in use at the present time. For example, the IBM 650 is used by one company for consolidation of company financial reports while another company applies the machine to payroll calculation and preparation, labor distribution, revenue accounting, general business and economic data analyses, and general accounting. Three Univacs: three card-to-tape converters, one unityper, two #2 tape-to-card converters and three high-speed printers are used by an insurance company for actuarial statistics for five lines of the insurance business, including calculation of reserve liability.

Also included is a list of commercial digital electronic computing centers equipped with one or more digital electronic computers and related equipment, whose services are available on a commercial fee basis.

The concluding section is a bibliography of books, periodicals, pamphlets and reports which have been published up to the time of printing.

Controllership Foundation, Inc.
2 Park Avenue
New York 16, N. Y.
Price $6.00

Subject: OFFICE WORK AND AUTOMATION

By: Howard S. Levin, Consultant, Ebasco Services, Inc.

Mr. Levin has written this book about the office, in a non-technical manner, for members of the management profession.

In approaching the topic, "information" is considered both as the raw material and finished product of office operations. Information handling in business, the author writes, then becomes synonymous with office work. It includes the (1) collecting and recording of information (2) processing information (3) utilizing information relating to the conduct of a business. Such information may concern production, sales, inventories, receivables, financing, plant expansion, and other aspects of business activity.

Effective planning for the handling of information requires consideration of data-processing equipment, operations research and the employment of physical, social and behavioral sciences. Statistics and sampling are important elements to which considerable space is devoted.

The final chapter covers "A Changing Office," the requirements of control, the accountants role, organizational considerations and the social and economic implications.

John Wiley & Sons, Inc.
440 Fourth Avenue
New York 16, N. Y.
Price $4.50

Subject: REPORTING FOREIGN OPERATIONS

By: Samuel R. Hepworth

The purpose of this book is to "explore the major problem areas in connection with investment in foreign subsidiaries and to suggest accounting and reporting techniques which reflect current conditions and which are compatible with generally accepted accounting principles logically applied." The areas to which particular attention is devoted include the translation of foreign currency accounts into dollars, the measurement and significance of the gain or loss resulting from exchange rate movements, the form and impact of governmental restriction on international financial transactions, and techniques for fully or partially including foreign currency accounts in consolidated financial statements.

Bureau of Business Research
School of Business Administration
University of Michigan
Ann Arbor, Michigan
Price $3.50

Subject: THE PHILOSOPHY OF INTEGRATED DATA PROCESSING

By: Allan O. Mann, Administrative Advisor

Published in Systems and Procedures, November 1956

Much information is available today on integrated data-processing, as developed and being developed. This article goes further and describes a broad philosophy of data-processing designed to eliminate weaknesses of the past.

First and foremost, the objective should be to change the nature of work now required of human beings who handle data needed for planning and control. "These are functions that belong to the tools man can contrive, not to man himself."

With two sets of equipment, namely teletypewriter or similar wire communication and electronic storage and computational equipment, we have, for the first time in history, direct, immediate access to summarized facts and their detailed supporting data upon demand. With this equipment, the modulations of business information can be kept in time and in tune with the modulations of physical operations. Mr. Mann writes that:

"Our future lies largely in 'in-line' data processing. 'Batch' processing will disappear. The only exception I can think of is payroll, where we will probably never want to pay employees minute to minute.

Sorting and sequential filing will dwindle rapidly and become a practice only for long-term legal documentation. Our future will lie largely in random storage with direct, high-speed access.

Pre-programming of data handling will dwindle and we will rely most heavily on programming as and when required, out of our massive storage.

We will rapidly come to agreement that we must solve our communications problems first if we are to properly solve our electronic ones.

We will more and more concentrate on the development of equipment to satisfy our desired goals rather than hunt for the best possible applications of existing equipment.

Subject: STREAMLINING AUDITING TECHNIQUES

By: Herman W. Bevis, Partner, Price Waterhouse & Company

Published in The Accounting Review, January 1957

The development of auditing by public accountants has increasingly tended to a review and appraisal of internal controls. Coupled with this is the continuity that comes with the fact that the majority of public accounting work is recurring examinations for the same clients. With these in mind, it appears that some change from the traditional procedure of treating each year as a distinct and separate audit might well be considered.

The author proposes that in continuing engagements, *where internal controls have been found effective and records reliable,* the audit program be streamlined on a long-term basis. Some of the means suggested are (1) to reduce emphasis on cash, with a complete audit only at intervals of several years, (2) reduction of testing on inventories, (3) variation in emphasis from year to year by accounts and by locations, (4) discussions with clients with a view to eliminating conditions which have resulted in excessive audit time.

In summary: "It is incumbent upon us as professional men to carry out our work competently and efficiently. We should re-examine our techniques in the light of the objectives to be attained . . . . all the work which is required should be done, but that which is anachronistic should be modernized or eliminated."

Subject: THE AUDIT OF CASH

By: Edward J. Taylor, Supervisor with Lybrand, Ross Bros., & Montgomery

Published in The Controller, December 1956

New methods and viewpoint which will bring about curtailment of time spent in auditing cash to a proportion based on the importance of cash in the balance sheet is the theme of this article.

Mr. Taylor states that the pathway to revision is clear, because it has been marked out so well in the auditing of receivables and inventories. The auditing of receivables is done on a sample basis with selections freely made by the auditor. Similarly, every act of the physical count or every step of computing does not need to be observed in the auditing of inventories. Through the co-operation of external and internal auditors, the scope of cash auditing procedure can be reduced by: (1) eliminating any independent reconciliations by the auditor as of the balance sheet date, (2) eliminating some of the bank accounts from consideration, (3) reducing the period of independent reconciliation from a month to a week, (4) examination of details of cash receipts and payments on the basis of careful selection of significant items.

EMPLOYMENT SECTION

This employment section is offered as a service to members and others who may be seeking employees or who may be interested in new employment. All replies should be addressed to the advertiser—if the name is given—or addressed to The Institute of Internal Auditors, 120 Wall Street, New York 5, N. Y., with reference to the Box "E" number. Space rate on request.

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INTERNAL AUDITORS

Well-known national industrial company has attractive openings for auditors with 2-5 years' internal audit or C.P.A. experience. Choice of full travel or locate in midwest or south with limited travel. Send detailed letter on age, education, experience, salary required. Information held in confidence. Box No. 176.

SITUATION WANTED

Head of internal audit staff desires change to company offering executive possibilities. Can organize new program, handle investigations, review and improve procedures. Box No. 177.